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List of publications of AIIMS, New
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1: Agarwal M, Singh A, Guru V, Seth R. Juvenile Myelomonocytic Leukemia: Profile and Outcome. *Indian J Pediatr.* 2017 Dec;84(12):963-964. doi: 10.1007/s12098-017-2415-0. Epub 2017 Jul 29. PubMed PMID: 28755173.

2: Agarwal R, Narayan J, Bhattacharyya A, Saraswat M, Tomar AK. Gene expression profiling, pathway analysis and subtype classification reveal molecular heterogeneity in hepatocellular carcinoma and suggest subtype specific therapeutic targets. *Cancer Genet.* 2017 Oct;216-217:37-51. doi: 10.1016/j.cancergen.2017.06.002. Epub 2017 Jul 8. PubMed PMID: 29025594.

A very low 5-year survival rate among hepatocellular carcinoma (HCC) patients is mainly due to lack of early stage diagnosis, distant metastasis and high risk of postoperative recurrence. Hence ascertaining novel biomarkers for early diagnosis and patient specific therapeutics is crucial and urgent. Here, we have performed a comprehensive analysis of the expression data of 423 HCC patients (373 tumors and 50 controls) downloaded from The Cancer Genome Atlas (TCGA) followed by pathway enrichment by gene ontology annotations, subtype classification and overall survival analysis. The differential gene expression analysis using non-parametric Wilcoxon test revealed a total of 479 up-regulated and 91 down-regulated genes in HCC compared to controls. The list of top differentially expressed genes mainly consists of tumor/cancer associated genes, such as AFP, THBS4, LCN2, GPC3, NUF2, etc. The genes over-expressed in HCC were mainly associated with cell cycle pathways. In total, 59 kinases associated genes were found over-expressed in HCC, including TTK, MELK, BUB1, NEK2, BUB1B, AURKB, PLK1, CDK1, PKMYT1, PBK, etc. Overall four distinct HCC subtypes were predicted using consensus clustering method. Each subtype was unique in terms of gene expression, pathway enrichment and median survival. Conclusively, this study has exposed a number of interesting genes which can be exploited in future as potential markers of HCC, diagnostic as well as prognostic and subtype classification may guide for improved and specific therapy.

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DOI: 10.1016/j.cancergen.2017.06.002
PMID: 29025594 [Indexed for MEDLINE]

3: Aggarwal R, Saxena A, Soni K. Posterior Reversible Encephalopathy Syndrome during Recovery from Hypovolemic Acute Kidney Injury after Trauma; Case Report and Literature Review. *Bull Emerg Trauma.* 2017 Jul;5(3):215-218. PubMed PMID: 28795068; PubMed Central PMCID: PMC5547211.

4: Agrawal T, Kumar R, Singh P, Saini A, Seth A, Dogra P. Have we overcome the complications of laparoscopic nephrectomy? A prospective, cohort study using the modified Clavien-Dindo scale. *Indian J Urol.* 2017 Jul-Sep;33(3):216-220. doi: 10.4103/iju.IJU_47_17. PubMed PMID: 28717272; PubMed Central PMCID: PMC5508433.

INTRODUCTION: Apart from the complexity of procedure and surgeon's experience, surgical complication rates depend on case definition and method of recording data. We prospectively evaluated the complications of laparoscopic nephrectomy (LN) in a current cohort of patients, graded on the modified Clavien-Dindo (CD) scale and compared them with historical cohorts.

METHODS: In the Institutional Review Board approved protocol, all patients undergoing LN over a 30-month were enrolled in the study. Clinical parameters, operative data, inhospital course, and 30-day follow-up were recorded prospectively in an electronic database by a resident who did not perform any of the surgeries. The complications were analyzed using the CD scale.

RESULTS: A total of 103 patients (age 14-80 years) underwent LN (30 radical, 73 simple) during the study period. Forty-three of these procedures were for inflammatory conditions (stone disease or tuberculosis). Six procedures were converted to open surgery due to vascular injury (2), bowel injury (1), and adhesions (3). There were 45 (46%) complications in the 97 procedures completed laparoscopically including 34 low-grade (CD grade 1, 2) and 11 high-grade (CD grade 3, 4) complications. There was no mortality. Complications were similar in patients undergoing surgery for inflammatory or noninflammatory conditions. CONCLUSIONS: LN continues to be associated with postoperative complications in 46% of cases. However, the complication rates appear to be higher than historical series, possibly due to the more rigorous case-definition and prospective recording.

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PMCID: PMC5508433
PMID: 28717272

Conflict of interest statement: Conflicts of interest: There are no conflicts of interest.

5: Ahirwar AK, Singh A, Jain A, Patra SK, Goswami B, Bhatnagar MK, Bhattacharjee J. Role of Sub Clinical Hypothyroidism in Association with Adiponectin Levels Causing Insulin Resistance in Metabolic Syndrome: A Case Control Study. Tokai J Exp Clin Med. 2017 Jul 20;42(2):96-103. PubMed PMID: 28681370.

INTRODUCTION: Metabolic Syndrome (Met S) is reported to be associated with sub clinical hypothyroidism (SCH). The aim of our study is to evaluate the role of SCH in association with adiponectin levels causing insulin resistance in metabolic syndrome.

MATERIALS AND METHOD: We recruited 100 study subjects; out of which 50 were cases of Met S, which were further divided into two groups based on presence and absence of SCH and 50 were healthy controls. Serum insulin, serum T3, T4, TSH were measured by chemiluminisence based immunoassay and serum adiponectin was measured by ELISA.

RESULTS: Mean TSH levels were significantly higher in Met S cases as compare to control. Out of 50 cases of Met S, 22 (44 %) had SCH. Mean serum adiponectin were significantly lower in Met S cases as compare to control. On Pearson's correlation analysis, TSH showed significant positive correlation with HOMA-IR and negative correlation with adiponectin levels. Strong association was found on the likelihood of low levels of adiponectin in Met S cases.

CONCLUSIONS: Met S cases showed insulin resistance and underlying SCH. SCH in Met S may cause altered adipocytes physiology which is associated with decreased release of insulin sensitising adiponectin which may lead to insulin resistance and future development of type II DM and associated co morbidities. Therefore, Met S cases should be screened for SCH and adiponectin levels thereafter. Also, our recommendation is SCH should be treated appropriately to attenuate insulin resistance and development of type II DM in Met S.

PMID: 28681370 [Indexed for MEDLINE]

6: Ahlawat P, Rawat S, Kakria A, Devnani B, Wahi IK, Simson DK. Reirradiation with IMRT for recurrent head and neck cancer: A single-institutional report on disease control, survival, and toxicity. Rep Pract Oncol Radiother. 2017 Jul-Aug;22(4):331-339. doi: 10.1016/j.rpor.2017.05.001. Epub 2017 Jun 7. PubMed PMID: 28663716; PubMed Central PMCID: PMC5472265.

AIM: To study and explores the feasibility and efficacy of re-irradiation (Re-RT) for locally recurrent head and neck cancer (HNC) and second primary (SP) malignancies.

BACKGROUND: The most common form of treatment failure after radiotherapy (RT) for HNC is loco-regional recurrence (LRR), and around 20-50% of patients develop LRR. Re-irradiation (Re-RT) has been the primary standard of care in the last decade for unresectable locally recurrent/SP HNC.

MATERIALS AND METHODS: It was a retrospective analysis in which we reviewed the medical records of 51 consecutive patients who had received Re-RT to the head and neck region at our institute between 2006 and 2015.

RESULTS: Forty-eight patients were included for assessment of acute and late toxicities, response evaluation at 3 months post Re-RT, and analyses of locoregional control (LRC) and overall survival (OS). The median LRC was 11.2 months, and at 2 and 5 years the LRC rates were 41% and 21.2%, respectively. A multivariate analysis revealed two factors: initial surgical resection performed prior to Re-RT, and achievement of CR at 3 months after completion of Re-RT to be significantly associated with a better median LRC. The median OS was 28.2 months, and at 1, 2, and 5 years, OS were 71.1%, 55.9% and 18%, respectively. A multivariate analysis revealed initial surgical resection performed prior to Re-RT, and achievement of CR at 3 months post completion of Re-RT being only two factors significantly associated with a better median OS. Acute toxicity reports showed that no patients developed grade 5 toxicity, and 2 patients developed grade 4 acute toxicities.

CONCLUSION: Re-RT for the treatment of recurrent/SP head and neck tumors is feasible and effective, with acceptable toxicity. However, appropriate patient selection criteria are highly important in determining survival and treatment outcomes.

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PMID: 28663716

7: Aji Alex MR, Nehate C, Veerananarayanan S, Kumar DS, Kulshreshtha R, Koul V. Self assembled dual responsive micelles stabilized with protein for co-delivery of drug and siRNA in cancer therapy. *Biomaterials*. 2017 Jul;133:94-106. doi: 10.1016/j.biomaterials.2017.04.022. Epub 2017 Apr 17. PubMed PMID: 28433941.

Design of safe and efficient vehicles for the combinatorial delivery of drugs and genetic agents is an emerging requisite for achieving enhanced therapeutic effect in cancer. Even though several nanoplatforms have been explored for the co-delivery of drugs and genetic materials the translation of these systems to clinical phase is still a challenge, mainly due to tedious synthesis procedures, lack of serum stability, inefficient scalability etc. Here in, we report development of reduction and pH sensitive polymeric graft of low molecular weight poly (styrene -alt -maleic anhydride) and evaluation of its efficacy in co-delivering drug and siRNA. The polymer was modified with suitable components, which could help in overcoming various systemic and cellular barriers for successful co-delivery of drugs and nucleic acids to cancer cells, using simple chemical reactions. The polymeric derivative could easily self assemble in water to form smooth, spherical micellar structures, indicating their scalability. Doxorubicin and PLK-1 siRNA were selected as model drug and nucleic acid, respectively. Doxorubicin could be loaded in the self assembling micelles with an optimum loading content of ~8.6% w/w and efficient siRNA complexation was achieved with polymer/siRNA weight ratios >40. The polyplexes were stabilized in physiological saline by coating with bovine serum albumin (BSA). Stable drug loaded nanoplexes, for clinical administration, could be easily formulated by gently dispersing them in physiological saline containing appropriate amount of

albumin. Drug release from the nanoplexes was significantly enhanced at low pH (5) and in the presence of 10 mM glutathione (GSH) showing their dual stimuli sensitive nature. In vitro cell proliferation assay and in vivo tumor regression study have shown synergistic effect of the drug loaded nanoplexes in inhibiting cancer cell proliferation. Facile synthesis steps, scalability and ease of formulation depict excellent clinical translation potential of the proposed nanosystem.

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PMID: 28433941

8: Arora G, Singh M, Jha P, Tripathy S, Bal C, Mukherjee A, Shamim SA. Formulation and characterization of lutetium-177-labeled stannous (tin) colloid for radiosynovectomy. Nucl Med Commun. 2017 Jul;38(7):587-592. doi: 10.1097/MNM.0000000000000684. PubMed PMID: 28538080.

OBJECTIVE: Easy large-scale production, easy availability, cost-effectiveness, long half-life, and favorable radiation characteristics have made lutetium-177 (Lu) a preferred radionuclide for use in therapy. Lutetium-177-labeled stannous (Lu-Sn) colloid particles were formulated for application in radiosynovectomy, followed by in-vitro and in-vivo characterization.

METHODS: Stannous chloride (SnCl₂) solution and Lu were heated together, the pH was adjusted, and the particles were recovered by centrifugation. The heating time and amount of SnCl₂ were varied to optimize the labeling protocol. The labeling efficiency (LE) and radiochemical purity (RCP) of the product were determined. The size and shape of the particles were determined by means of electron microscopy. In-vitro stability was tested in PBS and synovial fluid, and in-vivo stability was tested in humans.

RESULTS: LE and RCP were greater than 95% and ~99% (Rf=0-0.1), respectively.

Aggregated colloidal particles were spherical (mean size: 241±47nm). The product was stable in vitro for up to 7 days in PBS as well as in synovial fluid.

Injection of the product into the infected knee joint of a patient resulted in its homogenous distribution in the intra-articular space, as seen on the scan. No leakage of activity was seen outside the knee joint even 7 days after injection, indicating good tracer binding and in-vivo stability.

CONCLUSION: Lu-Sn colloid was successfully prepared with a high LE (>95%) and high RCP (99%) under optimized reaction conditions. Because of the numerous benefits of Lu and the ease of preparation of tin colloid particles, Lu-Sn colloid particles are significantly superior to its currently available counterparts for use in radiosynovectomy.

DOI: 10.1097/MNM.0000000000000684

PMID: 28538080

9: Babu BD, Jain V, Pruthi G, Mangtani N, Pillai RS. Effect of denture soft liner on mandibular ridge resorption in complete denture wearers after 6 and 12 months of denture insertion: A prospective randomized clinical study. J Indian Prosthodont Soc. 2017 Jul-Sep;17(3):233-238. doi: 10.4103/jips.jips_113_17. PubMed PMID: 28936036; PubMed Central PMCID: PMC5601493.

PURPOSE: Soft liners act as a cushion between the denture base and the residual ridge. Hence, it is important to study their effect on resorption of mandibular denture bearing area. Therefore, the purpose of this study was to evaluate the influence of soft denture liner on mandibular ridge resorption after 1 year in completely denture wearers.

MATERIALS AND METHODS: Twenty-eight completely edentulous patients having age between 45 and 60 years with well-formed ridges in class I jaw relations were selected as per the inclusion and exclusion criterion. Randomization chart was used to enroll participants in experimental and control groups who were given mandibular dentures with and without soft denture liner, respectively. Vertical measurements were made on orthopantomograph and analyzed using Adobe Photoshop 7.0 software at five points, i.e., one at central incisor and two points at right and left first premolars and two in each first molar region.

RESULTS: On application of repeated measures analysis of variance, both groups showed a significant change in bone height after denture delivery ($P < 0.05$). Intergroup comparison (Wilcoxon rank sum test) of bone height in different regions at various time intervals showed statistically significant difference in bone levels ($P < 0.05$) from baseline to 6 months and baseline to 12 months ($P < 0.01$), while the difference was statistically not significant during 6 and 12 months' period.

CONCLUSION: The use of soft denture liner significantly reduces the residual ridge resorption in complete denture wearers as compared to conventional denture wearers (without denture liner) over a period of 1 year.

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PMID: 28936036

Conflict of interest statement: There are no conflicts of interest.

10: Bairwa M, Ahamed F, Sinha S, Yadav K, Kant S, Pandav CS. Author's reply: Directly observed iron supplementation for control of iron deficiency anemia. Indian J Public Health. 2017 Jul-Sep;61(3):216. doi: 10.4103/ijph.IJPH_237_17. PubMed PMID: 28928309.

11: Balasubramanian P, Chopra A, Verma D, Singh IK, Kumar A, Sharma A, Kumar R. Imatinib resistance in chronic myeloid leukemia due to a rare mutation. Leuk Lymphoma. 2017 Jul;58(7):1750-1752. doi: 10.1080/10428194.2016.1256479. Epub 2016 Nov 20. PubMed PMID: 27868464.

12: Bansal A, Mitra A, Bisoi AK, Agarwala S. Surgical Repair of Congenital Abdominal Aortic Aneurysm in a 1-year-old Child with Literature Review. J Indian Assoc Pediatr Surg. 2017 Jul-Sep;22(3):176-178. doi: 10.4103/jiaps.JIAPS_258_16. PubMed PMID: 28694579; PubMed Central PMCID: PMC5473308.

Reported here is a case of 1-year-old male child who presented with huge abdominal mass, which on radiological investigation was diagnosed as retroperitoneal pseudoaneurysm of the aorta. On exploration, it was found to be a true aneurysm of infrarenal abdominal aorta with inflow agenesis. Aneurysm was excised, and aorta was reconstructed with 10 mm Dacron graft. Postoperative computed tomography angiography showed patent graft with good distal runoff. Literature review revealed that only 26 cases of congenital abdominal aortic aneurysm had been reported so far. None of them had inflow agenesis which can give false impression of pseudoaneurysm on preoperative evaluation. The case highlights the utility of additional complimentary investigations such as Doppler study in clinching diagnosis and helping plan and execute successful treatment in the difficult diagnostic scenario.

DOI: 10.4103/jiaps.JIAPS_258_16

PMCID: PMC5473308

PMID: 28694579

Conflict of interest statement: There are no conflicts of interest.
13: Bansal D, Singh P, Nayak B, Kaushal S. Synchronous urinary bladder metastasis of chromophobe renal cell carcinoma. *BMJ Case Rep.* 2017 Jul 5;2017. pii: bcr-2017-220780. doi: 10.1136/bcr-2017-220780. PubMed PMID: 28679514.

Urinary bladder metastasis in patients with renal cell carcinoma is rare and until now <70 cases have been documented in literature. Majority of these reported cases were histologically clear cell variant of renal cell carcinoma. Urinary bladder metastasis of chromophobe variant of renal cell carcinoma is extremely rare and is limited to only isolated case reports. We present here a case of a man aged 24 years who was diagnosed to have a left renal mass and right renal calculi on evaluation for complaints of left-sided abdominal pain and was incidentally detected to have suspicious bladder lesions during cystoscopy. Postoperative histopathology from the renal mass as well as the urinary bladder lesions showed chromophobe variant of renal cell carcinoma. The patient did not develop any recurrence on follow-up.

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Conflict of interest statement: Competing interests: None declared.

14: Bansal D, Nayak B, Singh P, Srivastava P. A rare case of persistent nephropleural fistula following percutaneous nephrolithotomy. *BMJ Case Rep.* 2017 Jul 27;2017. pii: bcr-2017-220466. doi: 10.1136/bcr-2017-220466. PubMed PMID: 28751431.

Nephropleural fistula following percutaneous nephrolithotomy (PCNL) is a very rare complication and there are only a few case reports available in the literature. We present a case of a 65-year-old male patient with a right staghorn renal calculus and a left upper ureteric calculus who developed a right nephropleural fistula following right-sided PCNL. The patient required intercostal tube drainage. The cause of the fistula was identified to be a superior calyceal infundibular obstruction due to tiny residual stone fragments and oedema, which was endoscopically dilated, and the fistula subsequently healed. Urinary diversion using chest drainage and percutaneous nephrostomy followed by infundibular dilation and removal of secondary stones allowed the successful closure of the nephropleural fistula in our case.

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DOI: 10.1136/bcr-2017-220466
PMID: 28751431

Conflict of interest statement: Competing interests: None declared.

15: Batra P, Deo V, Mathur P, Gupta AK. Cotrimoxazole, a wonder drug in the era of multiresistance: Case report and review of literature. *J Lab Physicians.* 2017 Jul-Sep;9(3):210-213. doi: 10.4103/0974-2727.208261. PubMed PMID: 28706393;

PubMed Central PMCID: PMC5496301.

Antimicrobial resistance is one of the greatest threats to human health worldwide. The rate of development of newer antibiotics is much slower than the rate of development of antibiotic resistance. A survey reported that it takes 15 years and US\$800 million (including preclinical and clinical costs) to bring a single drug to the market, whereas the reuse of the older drugs for antimicrobial use takes \$17 million, thereby circumventing 40% of the overall cost. The first case is a patient with nosocomial pyrexia of unknown origin who was given treatment with tigecycline and cefepime/tazobactam but failed to respond to the same. However, the patient responded to the treatment with cotrimoxazole. The second case is a patient with meningitis caused by an atypical zoonotic pathogen, *Staphylococcus chromogenes*. This is the first report of human infection with *S. chromogenes*, this being a common cause of bovine mastitis. The isolate was obtained from a patient of neurotrauma who developed meningitis after decompressive craniotomy. The strain was obtained from cerebrospinal fluid, blood, and shunt chamber pus. Cotrimoxazole was given for the treatment, and the patient improved after the treatment. Although the newer antibiotics have replaced sulfonamides in the treatment of many infections, they are still of great value and are the agents of choice in many infections. Sulfonamides have wide antimicrobial activity against both Gram-positive and Gram-negative bacteria, but their usefulness has diminished with the emergence of resistant strains. This paper reports cases of two different kinds of infections from a level 1 trauma center, who failed to respond to the newer antibiotics but showed a response to administration of cotrimoxazole.

DOI: 10.4103/0974-2727.208261

PMCID: PMC5496301

PMID: 28706393

Conflict of interest statement: There are no conflicts of interest.

16: Bhardwaj P, Sinha S, Yadav RK. Medical and scientific writing: Time to go lean and mean. *Perspect Clin Res*. 2017 Jul-Sep;8(3):113-117. doi: 10.4103/picr.PICR_11_17. Review. PubMed PMID: 28828305; PubMed Central PMCID: PMC5543761.

The Lean Six Sigma methodology for process improvements and driving efficiency is old, but lean writing was adopted late by the pharmaceutical world in terms of size of the documents. The documents were lean earlier, and then became voluminous, and now we are about to complete a full circle in this regard, i.e., coming back to the lean documents again using e-formats and hyperlinking. Furthermore, writing has become more and more precise over time. The need for this lean and mean medical and scientific writing arose from voluminous research globally, both industry and academia which are abuzz with skyrocketing regulatory and scientific submission volumes. The quantum of literature is so much that reviewers or information seekers firmly believe that going through even selected and relevant literature has become highly challenging. Considering this, there has been much insistence on downsizing the medical writing documents, which could be tempting enough to be leveraged for scientific publications as well. Here, we present the need for lean and mean medical writing, discuss this concept in relation to the pharmaceutical industry, and how to apply this to key documents. Furthermore, presented is the proposed algorithm for lean and mean clinical study reports and manuscripts. These thoughts are aligned to the recently established concept of data transparency, and can be easily achieved by web links between the protocols and clinical trial results disclosed publicly, and the corresponding manuscripts.

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PMCID: PMC5543761
PMID: 28828305

Conflict of interest statement: There are no conflicts of interest.

17: Bhaskar L, Kharya C, Deepak KK, Kochupillai V. Assessment of Cardiac Autonomic Tone Following Long Sudarshan Kriya Yoga in Art of Living Practitioners. *J Altern Complement Med*. 2017 Sep;23(9):705-712. doi: 10.1089/acm.2016.0391. Epub 2017 Jul 10. PubMed PMID: 28691853.

OBJECTIVE: The breathing processes are known to modulate cardiac autonomic tone and improve psychological status. We investigated cardiac autonomic tone following long Sudarshan Kriya Yoga (SKY) using heart rate variability (HRV) and skin conductance level (SCL).

METHODS: Thirty healthy volunteers (age 28.3 ± 8.4 years; 23M: 7 F) participated in the study. Electrocardiogram (ECG) and SCL were recorded for 5min each, before and after long SKY. Long SKY is a combination of pranayama and cyclic rhythmic breathing and is performed by following the guided audio instructions. HRV analysis was used for the assessment of cardiac autonomic tone. Time and frequency domain parameters of HRV were calculated by using RR interval of ECG. SCL was acquired using Galvanic skin response (GSR) amplifier of PowerLab in microSeimens (μ S).

RESULTS: Time domain parameters of HRV, including mean RR interval ($p=0.000$), respiratory sinus arrhythmia (RSA) ($p=0.037$), standard deviation of all NN intervals (SDNN) ($p=0.013$), NN50 count divided by the total number of all NN intervals (pNN50) ($p=0.004$), and square root of the mean of the sum of the squares of differences between adjacent NN intervals (RMSSD) ($p=0.002$) increased, and mean heart rate decreased ($p=0.000$) following long SKY. In frequency domain analysis, power of low-frequency (LF) component ($p=0.010$) and LF/HF ratio ($p=0.008$) decreased significantly, whereas power of high frequency (HF) significantly increased ($p=0.010$). SCL decreased following long SKY, although it did not attain statistical significance.

CONCLUSIONS: The results suggest that long SKY induces significant oscillations in cardiac autonomic tone. Parasympathetic activity increases and sympathetic activity decreases and sympathovagal balance improves following long SKY. Decrease in sympathetic activity is also demonstrated by decrease in conductance although it did not reach statistical significance. From this study it can be concluded that long SKY has a beneficial effect on cardiac autonomic tone, and psychophysiological relaxation. It may serve as a tool to improve HRV, which is the marker of cardiovascular health.

DOI: 10.1089/acm.2016.0391
PMID: 28691853 [Indexed for MEDLINE]

18: Bhatnagar S, Gielen J, Satija A, Singh SP, Noble S, Chaturvedi SK. Signs of Spiritual Distress and its Implications for Practice in Indian Palliative Care. *Indian J Palliat Care*. 2017 Jul-Sep;23(3):306-311. doi: 10.4103/IJPC.IJPC_24_17. PubMed PMID: 28827935; PubMed Central PMCID: PMC5545957.

INTRODUCTION: Given the particularity of spirituality in the Indian context, models and tools for spiritual care that have been developed in Western countries may not be applicable to Indian palliative care patients. Therefore, we intended to describe the most common signs of spiritual distress in Indian palliative care patients, assess differences between male and female participants, and formulate

contextually appropriate recommendations for spiritual care based on this data. METHODS: Data from 300 adult cancer patients who had completed a questionnaire with 36 spirituality items were analyzed. We calculated frequencies and percentages, and we compared responses of male and female participants using Chi-squared tests.

RESULTS: Most participants believed in God or a higher power who somehow supports them. Signs of potential spiritual distress were evident in the participants' strong agreement with existential explanations of suffering that directly or indirectly put the blame for the illness on the patient, the persistence of the "Why me?" question, and feelings of unfairness and anger. Women were more likely to consider illness their fate, be worried about the future of their children or spouse and be angry about what was happening to them. They were less likely than men to blame themselves for their illness. The observations on spirituality enabled us to formulate recommendations for spiritual history taking in Indian palliative care.

CONCLUSION: Our recommendations may help clinicians to provide appropriate spiritual care based on the latest evidence on spirituality in Indian palliative care. Unfortunately, this evidence is limited and more research is required.

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PMCID: PMC5545957
PMID: 28827935

Conflict of interest statement: There are no conflicts of interest.

19: Bhatnagar S, Thulkar S, Dhamija E, Khandelwal I, Nandi R, Chana G. Evaluation of outcomes of ultrasound guided celiac plexus neurolysis using immediate post procedure computed tomography: An observational study. *Indian J Gastroenterol.* 2017 Jul;36(4):282-288. doi: 10.1007/s12664-017-0780-2. Epub 2017 Aug 22. PubMed PMID: 28828591.

BACKGROUND: An interventional procedure like celiac plexus neurolysis (CPN) has a significant role in relieving intractable pain in patients with locally advanced abdominal malignancies. Ultrasound (USG) guidance enables performance of bedside CPN by real-time visualization of the needle trajectory. The objective of the study was to perform percutaneous USG-guided CPN and to verify technical outcomes of the procedure using a post-procedure CT scan.

METHODS: Eleven eligible patients of advanced upper abdominal malignancies having a pain score of >3/10 on visual analog scale (VAS) were recruited to undergo CPN. A post-procedure CT scan was performed to evaluate technical outcomes of the procedure. Patients were evaluated for pain relief. They were followed up at the 1st, 4th, and 6th weeks after CPN.

RESULTS: Eleven patients underwent USG-guided CPN. The injected drug was visualized as an echogenic cloud in ultrasound in 7 out of 11 (64%) patients. In the remaining 4 patients, the echogenic cloud was not well formed. In the post-procedure CT scan, the spread of the drug was seen in all 11 patients. This spread was bilaterally symmetrical in 7 (64%) patients and asymmetrical or unilateral in 4 (36%) patients. All patients in the immediate post-procedure period and 91% of the patients during the 1st-, 4th-, and 6th-week follow up had improvement in their pain scores.

CONCLUSION: A post-procedure CT scan was useful in verifying the technical outcome of USG-guided CPN in patients with advanced upper abdominal malignancies.

DOI: 10.1007/s12664-017-0780-2
PMID: 28828591

20: Bhethanabhotla S, Jain S, Kapoor G, Mahajan A, Chopra A, Vishnubhatla S,

Bakhshi S. Outcome of pediatric advanced Hodgkin lymphoma treated with ABVD and predictors of inferior survival: a multicenter study of 186 patients. *Leuk Lymphoma*. 2017 Jul;58(7):1617-1623. doi: 10.1080/10428194.2016.1262951. Epub 2016 Dec 6. PubMed PMID: 27919174.

Clinical stage alone is used for risk stratification in treatment of pediatric advanced Hodgkin lymphoma (HL). To identify other risk factors, we collected data from three tertiary centers on 186 patients with advanced stage (IIB-IV) consecutively treated with Adriamycin, bleomycin, vinblastine, Dacarbazine (ABVD) chemotherapy+radiotherapy. Freedom from treatment failure (FFTF) and overall survival (OS) were end points. With median follow-up period of 57.9 months (range: 1-151 months), five-year FFTF and OS was 84.8% (95% CI 78.6-89.3%) and 95.3% (95% CI 90.78-97.6%), respectively. We identified stage-4 [HR-3.6(1.25, 9.97); p=.017], high total leukocyte count (>15,000/mm³) [HR-2.6(1.3,8.1); p=.008] and lymphopenia (lymphocyte count ≤8%) [HR-4.9(1.7,14.1); p=.002] predictive of inferior FFTF. Patients with none or one of these risk factors had significantly better five-year FFTF (91.9%) as compared to those with risk factors (two risk factor [74.7%; p=.001]; 3,4 risk factors [14.3%; p<.0001]). Patients without these risk factors can be treated with ABVD and may not need intensive therapy.

DOI: 10.1080/10428194.2016.1262951
PMID: 27919174

21: Bhowmik D, Yadav S, Kumar L, Agarwal S, Agarwal SK, Gupta S. Sequential, Autologous Hematopoietic Stem Cell Transplant Followed by Renal Transplant in Multiple Myeloma. *Indian J Nephrol*. 2017 Jul-Aug;27(4):324-326. doi: 10.4103/ijn.IJN_169_16. PubMed PMID: 28761239; PubMed Central PMCID: PMC5514833.

A 30-year-old female was symptomatic with headache, fatigue, and weakness since October 2011 and was told to have anemia. In January 2012, she was admitted outside with pulmonary edema. Investigations revealed advanced azotemia, anemia, and hypercalcemia. Urine showed 2 + proteins and 30-35 red blood cells. There was no history of oral ulcers, rash, Raynaud's phenomenon, or hemoptysis. She was evaluated for causes of rapidly progressive "renal failure." Hemolytic work-up; antinuclear antibody, double-stranded DNA, and anti-neutrophil cytoplasmic antibody were negative. Kidney biopsy was done and interpreted as acute interstitial nephritis with hyaline casts. She was started on hemodialysis and treated with steroids and cyclophosphamide. She came to our institute in January 2012. Investigations showed evidence of paraproteinemia with kappa restriction. Bone marrow showed 15% plasma cells. Kidney biopsy was reviewed and was diagnostic of cast nephropathy. She was treated with 6 monthly cycles of dexamethasone and bortezomib. She achieved complete remission in July 2012. Maintenance doses of bortezomib were continued until May 2014. Autologous bone marrow transplantation was performed on June 06, 2014. Monthly, bortezomib was continued till April 2015. Subsequently, workup for renal transplantation was started with her father as her donor. Test for sensitization was negative. Renal transplantation was done on January 1, 2016, with prednisolone, mycophenolate, and tacrolimus. She achieved a serum creatinine of 0.6 mg% on the 4th postoperative day. Thereafter, she continues to remain stable.

DOI: 10.4103/ijn.IJN_169_16
PMCID: PMC5514833
PMID: 28761239

Conflict of interest statement: There are no conflicts of interest.

22: Bindu B, Bindra A, Rath G. Temperature management under general anesthesia: Compulsion or option. *J Anaesthesiol Clin Pharmacol*. 2017 Jul-Sep;33(3):306-316. doi: 10.4103/joacp.JOACP_334_16. Review. PubMed PMID: 29109627; PubMed Central PMCID: PMC5672515.

Administration of general anesthesia requires continuous monitoring of vital parameters of the body including body temperature. However, temperature continues to be one of the least seriously monitored parameters perioperatively. Inadvertent perioperative hypothermia is a relatively common occurrence with both general and regional anesthesia and can have significant adverse impact on patients' outcome. While guidelines for perioperative temperature management have been proposed, there are no specific guidelines regarding the best site or best modality of temperature monitoring and management intraoperatively. Various warming and cooling devices are available which help maintain perioperative normothermia. This article discusses the physiology of thermoregulation, effects of anesthesia on thermoregulation, various temperature monitoring sites and methods, perioperative warming devices, guidelines for perioperative temperature management and inadvertent temperature complications (hypothermia/hyperthermia) and measures to control it in the operating room.

DOI: 10.4103/joacp.JOACP_334_16
PMCID: PMC5672515
PMID: 29109627

Conflict of interest statement: There are no conflicts of interest.

23: Bouyoucef SE, Mercuri M, Pascual TN, Allam AH, Vangu M, Vitola JV, Better N, Karthikeyan G, Mahmarian JJ, Rehani MM, Kashyap R, Dondi M, Paez D, Einstein AJ; INCAPS investigators group. Nuclear cardiology practices and radiation exposure in Africa: results from the IAEA Nuclear Cardiology Protocols Study (INCAPS). *Cardiovasc J Afr*. 2017 Jul/Aug;28(4):229-234. doi: 10.5830/CVJA-2016-091. PubMed PMID: 28906538; PubMed Central PMCID: PMC5642028.

OBJECTIVE: While nuclear myocardial perfusion imaging (MPI) offers many benefits to patients with known or suspected cardiovascular disease, concerns exist regarding radiation-associated health effects. Little is known regarding MPI practice in Africa. We sought to characterise radiation doses and the use of MPI best practices that could minimise radiation in African nuclear cardiology laboratories, and compare these to practice worldwide.

METHODS: Demographics and clinical characteristics were collected for a consecutive sample of 348 patients from 12 laboratories in six African countries over a one-week period from March to April 2013. Radiation effective dose (ED) was estimated for each patient. A quality index (QI) enumerating adherence to eight best practices, identified a priori by an IAEA expert panel, was calculated for each laboratory. We compared these metrics with those from 7 563 patients from 296 laboratories outside Africa.

RESULTS: Median (interquartile range) patient ED in Africa was similar to that of the rest of the world [9.1 (5.1-15.6) vs 10.3 mSv (6.8-12.6), $p = 0.14$], although a larger proportion of African patients received a low ED, ≤ 9 mSv targeted in societal recommendations (49.7 vs 38.2%, $p < 0.001$). Bestpractice adherence was higher among African laboratories (QI score: 6.3 ± 1.2 vs 5.4 ± 1.3 , $p = 0.013$). However, median ED varied significantly among African laboratories (range: 2.0-16.3 mSv; $p < 0.0001$) and QI range was 4-8.

CONCLUSION: Patient radiation dose from MPI in Africa was similar to that in the rest of the world, and adherence to best practices was relatively high in African laboratories. Nevertheless there remain opportunities to further reduce radiation exposure to African patients from MPI.

DOI: 10.5830/CVJA-2016-091
PMCID: PMC5642028
PMID: 28906538

24: Cerdã J, Mohan S, Garcia-Garcia G, Jha V, Samavedam S, Gowrishankar S, Bagga A, Chakravarthi R, Mehta R. Acute Kidney Injury Recognition in Low- and Middle-Income Countries. *Kidney Int Rep.* 2017 Jul;2(4):530-543. doi: 10.1016/j.ekir.2017.04.009. Epub 2017 Apr 25. PubMed PMID: 29034358; PubMed Central PMCID: PMC5637391.

Acute kidney injury (AKI) is increasingly common around the world. Because of the low availability of effective therapies and resource limitations, early preventive and therapeutic measures are essential to decrease morbidity, mortality, and cost. Timely recognition and diagnosis of AKI requires a heightened degree of suspicion in the appropriate clinical and environmental context. In low- and middle-income countries (LMICs), early detection is impaired by limited resources and low awareness. In this article, we report the consensus recommendations of the 18th Acute Dialysis Quality Initiative meeting in Hyderabad, India, on how to improve recognition of AKI. We expect these recommendations will lead to an earlier and more accurate diagnosis of AKI, and improved research to promote a better understanding of the epidemiology, etiology, and histopathology of AKI in LMICs.

DOI: 10.1016/j.ekir.2017.04.009
PMCID: PMC5637391
PMID: 29034358

25: Chaniyara MH, Pujari A, Aron N, Sharma N. Optimising the surgical outcome in a case of post-traumatic cataract using ultrasound biomicroscopy. *BMJ Case Rep.* 2017 Jul 26;2017. pii: bcr-2017-220579. doi: 10.1136/bcr-2017-220579. PubMed PMID: 28751510.

A 12-year-old boy was brought with the chief complaint of diminution of vision in his left eye for the past 1 month. History revealed a blunt trauma to his left eye with a wooden stick 6 weeks ago. Visual acuity was 20/20 and hand movement close to face in right and left eye, respectively, without any relative afferent pupillary defect. Slit-lamp examination showed a total cataractous lens with signs suggestive of suspected posterior capsular (PC) defect. The PC defect was screened initially using B-scan ultrasound of the posterior segment, followed by confirmation of the same using ultrasound biomicroscopy. Left eye lens aspiration along with limited anterior vitrectomy followed by placement of multipiece intraocular lens in the sulcus was performed. Best-corrected visual acuity at 6 months of follow-up was 20/20.

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DOI: 10.1136/bcr-2017-220579
PMID: 28751510

Conflict of interest statement: Competing interests: None declared.

26: Chaudhary K, Ramanujam B, Kumaran SS, Chandra PS, Wadhawan AN, Garg A, Tripathi M. Does education play a role in language reorganization after surgery in drug refractory temporal lobe epilepsy: An fMRI based study? *Epilepsy Res.*

2017 Oct;136:88-96. doi: 10.1016/j.eplepsyres.2017.07.017. Epub 2017 Jul 29.
PubMed PMID: 28802988.

OBJECTIVES: Patients with drug refractory epilepsy (DRE) and a high level of education may differ in their language recovery after surgery. Our aim was to determine whether there were differences in the extent of improvement and pattern of reorganization of language functions on functional magnetic resonance imaging (fMRI) after surgery to treat refractory temporal lobe epilepsy (TLE) between patients with more than 12 years of formal education versus those with a shorter period of regular schooling.

METHODS: After approval by an institutional ethics committee, 60 right-handed, adult patients of left TLE and 20 right-handed, healthy controls were recruited to the study. Multiple aspects of language (Repetition, Naming, Word fluency, Visual word and Comprehension reading) were tested using the Indian Aphasia Battery (IAB) in the Hindi language; fMRI was performed using a standardized Hindi language paradigm (lexical, semantic, syntactic and comprehension components) in both cases and controls, before and after an anterior temporal lobectomy (in cases) with a 1.5T MR Scanner. An array of performance tests of intelligence and the verbal adult intelligence scale (VAIS) were used to measure the Intelligence Quotient (IQ) in Left TLE (LTLE) patients before and after surgery. Language laterality was estimated using the laterality index (LI-toolbox-spm8). Cohen's d test was performed to determine the effect sizes of the differences in the IAB scores, and Pearson's correlation was applied between regional (IFG and STG) activation in controls and TLE patients with more than 12 years of schooling [higher educational status (HES subgroup)] and those with less than 12 years of schooling [lower educational status (LES subgroup)].

RESULTS: At the baseline, clinical testing with IAB showed better scores in controls than in cases. Better scores were observed in subjects with higher levels of education than in those with lower levels of education. An improvement was observed in IQ scores in both the HES and LES groups after ATR; significant worsening in the abstract ability subtest was noted in the LES group, whereas in the HES group there was an improvement. Blood-oxygen-level dependent (BOLD) activation during language tasks was observed in both cerebral hemispheres in the TLE cases, while it was observed in the traditional left hemispheric language areas in controls. Postoperatively, greater BOLD activation was observed in the left inferior frontal gyri (IFG, $r=0.65^*$; $p<0.05$), middle frontal gyrus (MFG, $r=0.77^{**}$; $p<0.01$) superior temporal gyri (STG, $r=0.88^*$ $p<0.02$) and angular gyrus (AG, $r=0.73^*$; $p<0.04$) in HES compared to LES subjects. Similarly, LI showed left lateralization of the frontal (LIw=0.77 & 0.71) and temporal (LIw=0.74 & 0.5) regions in controls and the TLE group (post-surgery) compared to the pre-surgery group during language tasks.

CONCLUSIONS: Greater improvement in language skills and BOLD activation in the left hemisphere in TLE-patients (after epilepsy surgery) with a high level of education was similar to that of healthy controls, implying that education has an effect on the functional reorganization/recovery of language areas.

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DOI: 10.1016/j.eplepsyres.2017.07.017
PMID: 28802988

27: Chawla B, Kumar K, Singh AD. Influence of Socioeconomic and Cultural Factors on Retinoblastoma Management. *Asia Pac J Oncol Nurs*. 2017 Jul-Sep;4(3):187-190. doi: 10.4103/apjon.apjon_19_17. PubMed PMID: 28695163; PubMed Central PMCID: PMC5473088.

28: Chawla N, Kumar S, Balhara YPS. Olanzapine-induced Skin Eruptions. *Indian J Psychol Med.* 2017 Jul-Aug;39(4):537-538. doi: 10.4103/0253-7176.211763. PubMed PMID: 28852258; PubMed Central PMCID: PMC5560012.

Adverse cutaneous reactions are known to occur with psychotropic medications, which may lead to poor drug compliance. As compared to other group of psychotropics, there is relatively scarce literature on olanzapine-induced skin eruptions. We present a case of a 39-year-old man diagnosed with first episode mania and alcohol dependence syndrome who was started on tablet olanzapine which leads to fixed drug eruptions. Exhaustive investigations were done, all of which came out within normal limits. A diagnosis of fixed drug eruptions was made by the dermatologist. The skin eruptions subsided after stopping olanzapine. It has, thus, been emphasized that clinicians should be aware of the potential cutaneous eruptions associated with olanzapine. Early detection of the same would lead to timely management and hence better compliance with the psychotropic treatment.

DOI: 10.4103/0253-7176.211763
PMCID: PMC5560012
PMID: 28852258

Conflict of interest statement: There are no conflicts of interest.

29: Chetan S, Dada R. Comment on "Are Patients with Polycystic Ovarian Syndrome Ideal Candidates for Oocyte Donation?" *Biomed Res Int.* 2017;2017:2051620. doi: 10.1155/2017/2051620. Epub 2017 Jul 19. PubMed PMID: 28804713; PubMed Central PMCID: PMC5540252.

30: Dabas Y, Xess I, Kale P. Molecular and antifungal susceptibility study on trichosporonemia and emergence of *Trichosporon mycotoxinivorans* as a bloodstream pathogen. *Med Mycol.* 2017 Jul 1;55(5):518-527. doi: 10.1093/mmy/myw100. PubMed PMID: 27816903.

A total of 21 *Trichosporon* spp. isolates from blood over a period of 5 years (January 2009 to December 2013) were included in the study. The most common underlying diseases found were pancreatitis (33.3%) and cancer (33.3%). *Trichosporon asahii* (80.9%) was the commonest species followed by *Trichosporon mycotoxinivorans* (14.2%) and *Trichosporon faecale* (4.7%). On IGS1 region sequencing the most predominant *T. asahii* type in our region was genotype 1 (16/17 isolates; 94.1%) and one isolate belonged to genotype 4. Following the interpretative breakpoints for *Candida albicans* according to CLSI guidelines amphotericin B minimum inhibitory concentrations (MICs) were ≤ 1 $\mu\text{g/ml}$ for 38% of isolates. Fluconazole MICs were ≤ 4 $\mu\text{g/ml}$ for 33.3% of the isolates. Itraconazole MICs were ≤ 0.5 $\mu\text{g/ml}$ for 52.3% of the isolates. However, the MICs to posaconazole and voriconazole were ≤ 0.5 $\mu\text{g/ml}$ for all the isolates. The MICs to caspofungin and micafungin were ≤ 0.5 $\mu\text{g/ml}$ for only 0.09% of the isolates. This study reemphasizes that IGS1 sequencing is the most reliable technique for accurate identification of *Trichosporon* spp. and also to identify the newer species like *T. mycotoxinivorans*, which still remains rare. Surveillance of antifungal susceptibility patterns can provide the local drug resistance data to the clinicians which can further aid better management of patients.

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DOI: 10.1093/mmy/myw100

PMID: 27816903

31: Dar L, Namdeo D, Kumar P, Thakar A, Kant S, Rai S, Singh PK, Kabra M, Fowler KB, Boppana SB. Congenital Cytomegalovirus Infection and Permanent Hearing Loss in Rural North Indian Children. *Pediatr Infect Dis J*. 2017 Jul;36(7):670-673. doi: 10.1097/INF.0000000000001527. PubMed PMID: 28033238; PubMed Central PMCID: PMC5468472.

BACKGROUND: Congenital cytomegalovirus infection (cCMV) is a leading nongenetic cause of permanent congenital or early-onset hearing loss (PCEHL). Although cCMV rates are high despite near-universal seroimmunity, the contribution of cCMV to PCEHL in the developing world is unclear.

METHODS: Neonates at a rural North Indian hospital were screened for cCMV by saliva polymerase chain reaction and hearing by distortion-product otoacoustic emission testing. Cytomegalovirus (CMV)-positive infants and those not passing newborn hearing screening (NHS) were evaluated by auditory brainstem response to confirm PCEHL. Infants with cCMV and those with PCEHL were tested for mutations within the GJB2 gene.

RESULTS: Of the 1720 infants screened, 40 (2.3%) did not pass NHS and 20 (1.2%) were CMV positive. Auditory brainstem evoked response testing confirmed unilateral or bilateral PCEHL in 11 (0.64%) children who either did not pass NHS or CMV positive. PCEHL was 20-fold higher in neonates with cCMV (2/20, 10%) than those without (9/1700, 0.5%; $P < 0.01$). None of 11 infants with PCEHL had connexin 26 mutations.

CONCLUSION: PCEHL incidence is high in India, with cCMV contributing significantly despite near-universal seroimmunity. Our findings also demonstrate the feasibility and the utility of simultaneous newborn screening for both cCMV and hearing loss in a resource-limited setting.

DOI: 10.1097/INF.0000000000001527

PMCID: PMC5468472 [Available on 2018-07-01]

PMID: 28033238 [Indexed for MEDLINE]

32: Dar MS, Singh P, Mir RA, Dar MJ. β -catenin N-terminal domain: An enigmatic region prone to cancer causing mutations. *Mutat Res*. 2017 Jul;773:122-133. doi: 10.1016/j.mrrev.2017.06.001. Epub 2017 Jun 12. Review. PubMed PMID: 28927523.

The Wnt/ β -catenin is a highly conserved signaling pathway involved in cell fate decisions during various stages of development. Dysregulation of canonical Wnt/ β -catenin signaling has been associated with various diseases including cancer. β -Catenin, the central component of canonical Wnt signaling pathway, is a multi-functional protein playing both structural and signaling roles. β -Catenin is composed of three distinct domains: N-terminal domain, C-terminal domain and a central armadillo repeat domain. N-terminal domain of β -catenin harbours almost all of the cancer causing mutations, thus deciphering its critical structural and functional roles offers great potential in cancer detection and therapy. Here, in this review, we have collected information from pharmacological analysis, bio-physical and structural studies, molecular modeling, in-vivo and in-vitro assays, and transgenic animal experiments employing various N-terminal domain variants of β -catenin to discuss the interaction of β -catenin with its binding partners that specifically interact with this domain and the implications of these interactions on signaling, cell fate determination, and in tumorigenesis. A thorough understanding of interactions between β -catenin and its binding partners will enable us to more effectively understand how β -catenin switches between its multiple roles, and will lead to the development of specific assays for the

identification of small molecules as chemotherapeutic agents to treat diseases, including cancer and neurological disorders, where Wnt/ β -catenin signaling is dysregulated.

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PMID: 28927523 [Indexed for MEDLINE]

33: Das S, Biswas A, Roy S, Sable MN, Singh D, Jana M, Sharma MC, Julka PK. Recurrent intracranial Rosai-Dorfman disease: Management of a challenging case. *Asian J Neurosurg*. 2017 Jul-Sep;12(3):537-540. doi: 10.4103/1793-5482.209994. PubMed PMID: 28761538; PubMed Central PMCID: PMC5532945.

Rosai-Dorfman disease (RDD) is a rare, idiopathic, benign histioproliferative disorder. Extranodal involvement is seen in around 25-40% of patients. Central nervous system manifestation of RDD is uncommon and suprasellar location of the lesion is a distinct rarity. Surgery is the cornerstone of management of intracranial RDD. However, tumor recurrence or regrowth is a potential problem. Hence, low dose conformal radiotherapy (RT) should be considered in patients undergoing sub-total resection or having unresectable recurrent disease. Though cranial RT usually leads to satisfactory improvement of symptoms and long-term disease stabilization or regression, in few patients there may be an eventual progression of disease for which systemic chemotherapy may be considered. We have highlighted the salient features of this enigmatic disease by citing a case of a 50-year-old male patient with suprasellar RDD treated by maximal safe surgery and deferred radiation therapy on progression.

DOI: 10.4103/1793-5482.209994

PMCID: PMC5532945

PMID: 28761538

Conflict of interest statement: There are no conflicts of interest.

34: Datta PK, Aravindan A. Glucose for Children during Surgery: Pros, Cons, and Protocols: A Postgraduate Educational Review. *Anesth Essays Res*. 2017 Jul-Sep;11(3):539-543. doi: 10.4103/aer.AER_39_17. Review. PubMed PMID: 28928543; PubMed Central PMCID: PMC5594762.

The question of whether glucose supplementation is required in children during surgery is still under debate. The impact of perioperative glucose supplementation, or its restriction, on their metabolism remains unclear. We discuss the findings of various studies that have addressed this question and the rationale for current recommendations.

DOI: 10.4103/aer.AER_39_17

PMCID: PMC5594762

PMID: 28928543

Conflict of interest statement: There are no conflicts of interest.

35: Dayal P, Sarkar S, Balhara YPS. Predictors of Inpatient Treatment Completion among Females with Opioid Use Disorder: Findings from a Tertiary Care Drug Dependence Treatment Centre of India. *Indian J Psychol Med*. 2017 Jul-Aug;39(4):464-468. doi: 10.4103/0253-7176.211769. PubMed PMID: 28852241; PubMed Central PMCID: PMC5559995.

INTRODUCTION: Studies have reported that females who drop out prematurely from inpatient treatment have poor treatment outcome. However, literature from India is limited in this regard.

METHODS: We reviewed case records of female patients admitted with opioid use disorder at NDDTC, Ghaziabad between January 1, 2008 and December 31, 2012 to study the predictors of inpatient treatment completion among female patients with opioid use disorder in relation to their sociodemographic and clinical profile.

RESULTS: Over the 5 years, 72 female patients were admitted with opioid dependence. During the study period, out of 72 patients, 44 (61.1%) were inpatient treatment completers and 28 (38.9%) were noncompleters. Mean length of ward stay was 5.1 ± 3.8 days and 16.2 ± 11.8 days for inpatient treatment noncompleters and completers, respectively, the difference being statistically significant ($t = 4.845$, $P < 0.001$). The multivariable analysis (adjusted for selected demographic characteristics as marital status, education, and employment) revealed that most women taking drug for relief from pain, having medical morbidity, and onset of opioids at age 25 years or more had a significantly greater likelihood for being treatment completers.

CONCLUSION: Certain factors can help in identification of women opioid users who are at risk of leaving the treatment.

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PMCID: PMC5559995

PMID: 28852241

Conflict of interest statement: There are no conflicts of interest.

36: de Raaff CAL, Gorter-Stam MAW, de Vries N, Sinha AC, Jaap Bonjer H, Chung F, Coblijn UK, Dahan A, van den Helder RS, Hilgevoord AAJ, Hillman DR, Margaron MP, Mattar SG, Mulier JP, Ravesloot MJL, Reiber BMM, van Rijswijk AS, Singh PM, Steenhuis R, Tenhagen M, Vanderveken OM, Verbraecken J, White DP, van der Wielen N, van Wagenveld BA. Perioperative management of obstructive sleep apnea in bariatric surgery: a consensus guideline. *Surg Obes Relat Dis.* 2017 Jul;13(7):1095-1109. doi: 10.1016/j.soard.2017.03.022. Epub 2017 Mar 30. PubMed PMID: 28666588.

BACKGROUND: The frequency of metabolic and bariatric surgery (MBS) is increasing worldwide, with over 500,000 cases performed every year. Obstructive sleep apnea (OSA) is present in 35%-94% of MBS patients. Nevertheless, consensus regarding the perioperative management of OSA in MBS patients is not established.

OBJECTIVES: To provide consensus based guidelines utilizing current literature and, when in the absence of supporting clinical data, expert opinion by organizing a consensus meeting of experts from relevant specialties.

SETTING: The meeting was held in Amsterdam, the Netherlands.

METHODS: A panel of 15 international experts identified 75 questions covering preoperative screening, treatment, postoperative monitoring, anesthetic care and follow-up. Six researchers reviewed the literature systematically. During this meeting, the "Amsterdam Delphi Method" was utilized including controlled acquisition of feedback, aggregation of responses and iteration.

RESULTS: Recommendations or statements were provided for 58 questions. In the judgment of the experts, 17 questions provided no additional useful information and it was agreed to exclude them. With the exception of 3 recommendations (64%, 66%, and 66% respectively), consensus (>70%) was reached for 55 statements and recommendations. Several highlights: polysomnography is the gold standard for diagnosing OSA; continuous positive airway pressure is recommended for all patients with moderate and severe OSA; OSA patients should be continuously monitored with pulse oximetry in the early postoperative period; perioperative usage of sedatives and opioids should be minimized.

CONCLUSION: This first international expert meeting provided 58 statements and recommendations for a clinical consensus guideline regarding the perioperative management of OSA patients undergoing MBS.

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37: Dev T, Taneja N, Juyal D, Dhawan B, Gupta S. Upper genital tract infection due to *Ureaplasma urealyticum*: Etiological or syndromic management? *Indian J Dermatol Venereol Leprol.* 2017 Jul-Aug;83(4):489-491. doi: 10.4103/ijdv.IJDVL_497_16. PubMed PMID: 28474641.

38: Dev T, Thami T, Longchar M, Sethuraman G. Lupus miliaris disseminatus faciei: a distinctive facial granulomatous eruption. *BMJ Case Rep.* 2017 Jul 14;2017. pii: bcr-2017-221118. doi: 10.1136/bcr-2017-221118. PubMed PMID: 28710244.

Facial granulomatous papules are important to recognise, as some of them are associated with significant systemic association, particularly sarcoidosis and certain infectious conditions. Lupus miliaris disseminatus faciei (LMDF) is a benign granulomatous disorder of unknown aetiology characterised by symmetrical, monomorphic, reddish-brown papules on the face. It is not associated with any underlying systemic involvement. We report a case of LMDF in a middle-aged man who presented to us with multiple asymptomatic and monomorphic reddish papules on the face for 3 months. Skin biopsy showed well-formed perifollicular epithelioid cell granulomas with focus of necrosis suggestive of LMDF. The lesions significantly responded to oral steroids.

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PMID: 28710244

Conflict of interest statement: Competing interests: None declared.

39: Devaraja K, Sikka K, Kumar R, Sagar P. "Syndrome of Inappropriate Antidiuretic Hormone Secretion" as a Diagnostic and a Prognostic Indicator in Olfactory Neuroblastoma. *Indian J Endocrinol Metab.* 2017 Jul-Aug;21(4):644-645. doi: 10.4103/ijem.IJEM_94_17. PubMed PMID: 28670560; PubMed Central PMCID: PMC5477464.

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Substance use disorder (SUD) is a major problem worldwide, including in India, and contributes significantly to morbidity and mortality. The Ministry of Social

Justice and Empowerment, Government of India, addresses the prevention and rehabilitation aspect of substance use through the establishment of "rehabilitation centers" run by nongovernmental organizations. The Drug De-addiction Programme (DDAP) was initiated in 1988 under the Ministry of Health and Family Welfare, Government of India, and was mandated with provision of treatment for SUDs. Through the DDAP, de-addiction centers (DACs) have been established in government hospitals by providing a one-time financial grant by the central government, with the recurring expenses to be borne by the state governments. In addition, some premier institutions as well as DACs from Northeastern region are provided annual recurring grants for their functioning. Capacity building has been a major focus area of DDAP in which nonspecialist medical officers working in government hospitals have been trained, and various training materials have been developed. Another major area of work is the development of "drug abuse monitoring system" to track the pattern of drug use and profile among individuals seeking treatment in the DACs. Monitoring and evaluation exercises carried out show that the existing model of inpatient treatment and of shared responsibility between central and state governments is partially successful. The establishment of drug treatment clinics on pilot basis with a focus on outpatient treatment and direct support from the DDAP for staff as well as for medicines is showing encouraging results.

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PMCID: PMC5659092
PMID: 29085101

Conflict of interest statement: There are no conflicts of interest.

41: Dhawan A, Pattanayak RD, Chopra A, Tikoo VK, Kumar R. Pattern and profile of children using substances in India: Insights and recommendations. *Natl Med J India*. 2017 Jul-Aug;30(4):224-229. doi: 10.4103/0970-258X.218679. PubMed PMID: 29162759.

India has one of the largest proportion of children and adolescents in the world, but the threat posed by child substance use remains under-researched. Only recently a large study, the first of its kind in India, was carried out with a sample of nearly 4000 children using substances (school-going, out-of-school as well as street children) across more than a hundred cities/towns. We discuss (i) the existing knowledge on the prevalence of child substance abuse in India; (ii) perspectives and insights gained from the recent nation-wide study on its pattern and profile; and (iii) recommendations for substance use prevention and treatment among children in the Indian context. A multipronged approach involving all stakeholders is required to address the issues of prevention and treatment.

DOI: 10.4103/0970-258X.218679
PMID: 29162759

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Abdominal pain is the foremost complication of chronic pancreatitis (CP). Pain can be related to recurrent or chronic inflammation, local complications or

neurogenic mechanisms with corresponding changes in the nervous systems. Both pain intensity and the frequency of pain attacks have been shown to reduce quality of life in patients with CP. Assessment of pain follows the guidelines for other types of chronic pain, where the multidimensional nature of symptom presentation is taken into consideration. Quantitative sensory testing may be used to characterize pain, but is currently used in a research setting in advanced laboratories. For pain relief, current guidelines recommend a simple stepwise escalation of analgesic drugs with increasing potency until pain relief is obtained. Abstinence from alcohol and smoking should be strongly advised. Pancreatic enzyme therapy and antioxidants may be helpful as initial treatment. Endoscopic treatment can be used in patients with evidence of ductal obstruction and may be combined with extracorporeal shock wave lithotripsy. The best candidates are those with distal obstruction of the main pancreatic duct and in early stage of disease. Behavioral interventions should be part of the multidisciplinary approach to chronic pain management particularly when psychological impact is experienced. Surgery should be considered early and after a maximum of five endoscopic interventions. The type of surgery depends on morphological changes of the pancreas. Long-term effects are variable, but high success rates have been reported in open studies and when compared with endoscopic treatment. Finally, neurolytical interventions and neuromodulation can be considered in difficult patients.

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DOI: 10.1016/j.pan.2017.07.006

PMID: 28734722

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46: Gjøen JE, Jenum S, Sivakumaran D, Mukherjee A, Macaden R, Kabra SK, Lodha R, Ottenhoff THM, Haks MC, Doherty TM, Ritz C, Grewal HMS. Novel transcriptional signatures for sputum-independent diagnostics of tuberculosis in children. *Sci Rep.* 2017 Jul 19;7(1):5839. doi: 10.1038/s41598-017-05057-x. PubMed PMID: 28724962; PubMed Central PMCID: PMC5517635.

Pediatric tuberculosis (TB) is challenging to diagnose, confirmed by growth of *Mycobacterium tuberculosis* at best in 40% of cases. The WHO has assigned high priority to the development of non-sputum diagnostic tools. We therefore sought to identify transcriptional signatures in whole blood of Indian children, capable of discriminating intra-thoracic TB disease from other symptomatic illnesses. We investigated the expression of 198 genes in a training set, comprising 47 TB

cases (19 definite/28 probable) and 36 asymptomatic household controls, and identified a 7- and a 10-transcript signature, both including NOD2, GBP5, IFITM1/3, KIF1B and TNIP1. The discriminatory abilities of the signatures were evaluated in a test set comprising 24 TB cases (17 definite/7 probable) and 26 symptomatic non-TB cases. In separating TB-cases from symptomatic non-TB cases, both signatures provided an AUC of 0.94 (95%CI, 0.88-1.00), a sensitivity of 91.7% (95%CI, 71.5-98.5) regardless of culture status, and 100% sensitivity for definite TB. The 7-transcript signature provided a specificity of 80.8% (95%CI, 60.0-92.7), and the 10-transcript signature a specificity of 88.5% (95%CI, 68.7-96.9%). Although warranting exploration and validation in other populations, our findings are promising and potentially relevant for future non-sputum based POC diagnostic tools for pediatric TB.

DOI: 10.1038/s41598-017-05057-x

PMCID: PMC5517635

PMID: 28724962

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BACKGROUND: In this meta-analysis, we explore the role of repetitive transcranial magnetic stimulation (rTMS), a noninvasive neuromodulation technique in the treatment of chronic pain.

METHODS: Studies comparing rTMS and conventional treatment for chronic pain were searched. The comparison was made for decrease in the pain scores with and without (sham) the use of rTMS after a follow-up interval of 4-8 weeks. All reported pain scores were converted into a common scale ranging from "0" (no pain) to "10" (worst pain).

RESULTS: Nine trials with 183 patients in each of the groups were included in the analysis. The decrease in pain scores with rTMS was 1.12 (95% confidence interval [CI] being 1.46-0.78) (fixed effects, $I^2 = 0\%$, $P < 0.001$) and in sham-rTMS was 0.28 (95% CI being 0.49-0.07) (Fixed effects, $I^2 = 0$, $P = 0.01$). The pooled mean drop in pain scores with rTMS therapy was higher by 0.79 (95% CI being 0.26-1.33) (fixed effects, $I^2 = 0$, $P < 0.01$). The duration and frequency of rTMS were highly variable across trials. Publication bias was unlikely (Egger's test, X-intercept = 0.13, $P = 0.75$).

CONCLUSIONS: Use of rTMS improves the efficacy of conventional medical treatment in chronic pain patients. This treatment is not associated with any direct adverse effects. However, the duration and frequency of rTMS therapy is presently highly variable and needs standardization.

DOI: 10.4103/aer.AER_10_17

PMCID: PMC5594801

PMID: 28928582

Conflict of interest statement: There are no conflicts of interest.

50: Gupta A, Agnihotri V, Kumar R, Upadhyay AD, Bhaskar S, Dwivedi S, Dey S. Effects of Tobacco Habits on the Polymorphism of NFKB1 and NFKB1A Gene of Head and Neck Squamous Cell Carcinoma in Indian Population. *Asian Pac J Cancer Prev.* 2017 Jul 27;18(7):1855-1859. PubMed PMID: 28749120; PubMed Central PMCID: PMC5648390.

Background: Polymorphism of NFKB1 and NFKB1A are highly associated with cancer. We have assessed polymorphism in the promoter region of NFKB1 -94 del/ins ATTG (rs28362491) and NFKB1A -826 C/T (rs2233406) with the risk of HNSCC in Indian population. Methods: Polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) method was used for the genotyping NFKB1 -94 del/ins ATTG and NFKB1A -826 C/T. Sequencing was done to validate the results of PCR-RFLP. Statistical analysis of data was done by Stata/SE-14.0 software. Results: ins/ins genotype was observed to be a risk factor of HNSCC as compared del/del genotype of NFKB1 -94 ATTG. Interactive effects of smoking and chewing on ins/ins genotype showed 13.96 and 10.92 fold increased risk of HNSCC. NFKB1A -826 C/T polymorphism, TT genotype showed no association with the risk of HNSCC as compared to wild type CC genotype. Conclusion: Our results showed NFKB1 -94 del/ins ATTG with smoking and tobacco chewing may increase the risk of HNSCC while NFKB1A -826 C/T plays a protective role in Indian population.

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DOI: 10.22034/APJCP.2017.18.7.1855
PMCID: PMC5648390
PMID: 28749120

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BACKGROUND: Damage control surgery (DCS) has been a well-established practice in the management of trauma victims for more than 2 decades now. The primary aim of this study was to review and analyze the presentation and outcome of patients with torso trauma who underwent DCS at Level I trauma center. METHODS: Retrospective study was conducted using database records prospectively maintained over period of 6 years from 2008 through 2013 at an urban Level I trauma center. Data available from hospital medical records were analyzed to study presentation, mechanism of injury, organs injured, associated injuries, and outcome in patients who underwent DCS following torso trauma. Primary outcome measure was survival. RESULTS: Total of 61 patients were identified who had undergone DCS during the study period. Majority of these patients were males (n=59), had sustained blunt trauma as result of road traffic injury, and had presented with shock (n=49). The 30-day mortality rate was 54%. Mortality was significantly associated with shock (63% cases died; p=0.008), and with Glasgow Coma scale ≤ 8 (85% died; p=0.001). Injuries significantly associated with high mortality were hepatic injury (n=15; 11 died), major vascular injury (n=10; 3 died), cardiac injury (n=5; 3 died), and pelvic fracture (n=17; 10 died). Re-exploration was required in 28 cases with 13 deaths. Mesh laparostomy was performed in 24 cases, with mortality in 58%.

CONCLUSION: In the absence of more effective alternative, especially at facilities with limited resources, DCS may be appropriate in critically injured patients; however, it continues to be associated with significant morbidity and high mortality, even at tertiary care centers.

PMID: 28762453

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BACKGROUND/AIMS: Familial occurrence of inflammatory bowel disease (IBD) is well documented. Reports from Western countries have shown a higher familial occurrence of ulcerative colitis (UC) in first- and second-degree relatives than that in the Asian UC population. No data are currently available from the Indian subcontinent in this regard. We present our data on the familial aggregation of UC.

METHODS: Records of patients with UC followed at the Inflammatory Bowel Disease Clinic at the All India Institute of Medical Sciences, New Delhi from August 2004 to January 2016 were reviewed. Details regarding the prevalence of family history and characteristics of these patients were recorded. Affected family members were contacted and disease characteristics were noted for assessment of familial aggregation.

RESULTS: Of the 2,058 UC patients included in the analysis, a positive family history of IBD was confirmed in 31 patients (1.5%), 24 (77.4%) of whom had only first-degree relatives affected. All the affected relatives had UC and none had Crohn's disease. Among first-degree relatives, siblings were found to have the highest prevalence of IBD (53.3%), followed by parents (26.7%).

CONCLUSIONS: The probability of occurrence of IBD in family members of affected North Indian UC patients is lower than that reported in Western populations.

DOI: 10.5217/ir.2017.15.3.388

PMCID: PMC5478764

PMID: 28670236

Conflict of interest statement: Conflict of interest: None.

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Chronic kidney disease (CKD) is a major cause of morbidity and mortality among individuals with HIV infection. Screening for proteinuria in HIV-infected children will help in early detection and treatment, and thus prevention and progression to CKD to end-stage kidney disease (ESRD). We screened 139

HIV-infected children aged 18 months to 18 years for proteinuria by urinary dipstick and confirmed by spot urine protein-to-creatinine ratio. If proteinuria was absent by the above methods, patients were screened for microalbuminuria by urinary albumin to creatinine ratio. We found proteinuria in 11.5% and microalbuminuria in 10.6% of our study population. The prevalence of proteinuria was higher in the advanced stages; 8.05% in stage 1, 12.12% in stage 2 and 26.32% in stages 3 + 4.

DOI: 10.1177/0049475516668963

PMID: 27655943

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Nonmalignant respiratory diseases are chronic and life-limiting conditions that need holistic palliative care. Such patients not only have a variety of physical symptoms such as dyspnea, pain, cough, depression, and anxiety, but also have a number of psychosocial and spiritual issues, which are not addressed to by us. This leads to a poor quality of life. Hence, these patients require supportive palliative care to relieve their sufferings, but unfortunately such care is not available to them in our country. In this article, we have tried to discuss the barriers to the provision of palliative care to such patients and suggested some measures to overcome them.

DOI: 10.4103/IJPC.IJPC_14_17

PMCID: PMC5545966

PMID: 28827944

Conflict of interest statement: There are no conflicts of interest.

57: Gupta R. Phosphorylation of rat brain purified mitochondrial Voltage-Dependent Anion Channel by c-Jun N-terminal kinase-3 modifies open-channel noise. *Biochem Biophys Res Commun*. 2017 Sep 2;490(4):1221-1225. doi: 10.1016/j.bbrc.2017.06.194. Epub 2017 Jul 1. PubMed PMID: 28676395.

The drift kinetic energy of ionic flow through single ion channels cause vibrations of the pore walls which are observed as open-state current fluctuations (open-channel noise) during single-channel recordings. Vibration of the pore wall leads to transitions among different conformational sub-states of the channel protein in the open-state. Open-channel noise analysis can provide important information about the different conformational sub-state transitions and how biochemical modifications of ion channels would affect their transport properties. It has been shown that c-Jun N-terminal kinase-3 (JNK3) becomes activated by phosphorylation in various neurodegenerative diseases and phosphorylates outer mitochondrion associated proteins leading to neuronal apoptosis. In our earlier work, JNK3 has been reported to phosphorylate purified rat brain mitochondrial voltage-dependent anion channel (VDAC) in vitro and modify its conductance and opening probability. In this article we have compared the open-state noise profile of the native and the JNK3 phosphorylated VDAC using Power Spectral Density vs frequency plots. Power spectral density analysis of open-state noise indicated power law with average slope value $\alpha \approx 1$ for native VDAC at both positive and negative voltage whereas average α value < 0.5 for JNK3 phosphorylated VDAC at both positive and negative voltage. It is proposed that $1/f$ power law in native VDAC open-state noise arises due to coupling of ionic transport and conformational sub-states transitions in open-state and this

coupling is perturbed as a result of channel phosphorylation.

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PMID: 28676395 [Indexed for MEDLINE]

58: Gupta S, Mukherjee A, Khadgawat R, Kabra M, Lodha R, Kabra SK. Bone Mineral Density of Indian Children and Adolescents with Cystic Fibrosis. *Indian Pediatr.* 2017 Jul 15;54(7):545-549. PubMed PMID: 28737140.

OBJECTIVE: To document bone mineral density of children and adolescents with cystic fibrosis.

DESIGN: Cross-sectional study.

SETTING: Tertiary-care center of Northern India, July 2012 to August 2015.

PARTICIPANTS: 52 children aged 6-18 years with cystic fibrosis and 62 healthy controls of similar age and sex.

METHODS: Both patients and controls were stratified into two groups, as pre-pubertal and peri-/post-pubertal, and compared for whole body bone mineral density, measured using dual energy X-ray absorptiometry. Serum levels of calcium, phosphate, alkaline phosphatase, 25-hydroxyvitamin D and parathyroid hormone were measured in children with cystic fibrosis.

RESULTS: Compared with controls, the mean (SD) bone mineral density of children with cystic fibrosis was significantly lower in both the pre-pubertal (0.7 (0.1) g/cm² vs 0.9 (0.1) g/cm²; P<0.001) and peri-/post-pubertal groups (0.9 (0.1) g/cm² vs 1.1 (0.1) g/cm²; P<0.001). Also, the mean (SD) bone mineral apparent density of pre-pubertal and peri-/post-pubertal cystic fibrosis patients was lower than the controls (P <0.001 and P= 0.01, respectively). Thirty-seven (71.2%) cystic fibrosis patients had serum 25-hydroxyvitamin D level below 15 ng/mL.

CONCLUSION: Bone mineral density of children with cystic fibrosis was significantly lower than controls; majority of them were vitamin-D deficient. Intervening at an early stage of the disease and providing optimal therapy involving simultaneous management of the several factors affecting bone mineral accretion may be beneficial in improving bone health of these patients.

PMID: 28737140

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62: Guruprasad P, Kishore K, Mahajan S, Aggarwal S. Active surveillance for

adverse events among patients who underwent renal transplantation: A prospective observational study. *Perspect Clin Res.* 2017 Jul-Sep;8(3):118-123. doi: 10.4103/2229-3485.210447. PubMed PMID: 28828306; PubMed Central PMCID: PMC5543762.

AIM: Renal transplantation is the treatment of choice for end-stage renal disease patients. Renal transplant recipients, however, have to be on lifelong therapy with immunosuppressants, which are associated with a number of adverse events (AEs). The safety profile of these immunosuppressants is not clear with respect to the Indian population. This study was conducted to find the frequency and pattern of all AEs experienced by Indian renal transplant recipients during the initial 3 months posttransplantation.

METHODS: Adults undergoing their first renal transplantation were enrolled in the study. All enrolled subjects were followed up for a maximum period of 3 months. All AEs were graded for severity and classified according to the Common Terminology Criteria for AEs criteria.

RESULTS: Ninety-eight renal transplant recipients enrolled in the study. There was a loss of follow-up of 7%. Five subjects died during the study. Subjects experienced on an average 9 AEs during the study. There was no difference in frequency of AEs between those on tacrolimus and cyclosporine. Most commonly observed AEs belonged to "Investigational" and "Metabolism and Nutrition" system organ classes. The most common AE was hypokalemia. New-onset diabetes after transplantation (NODAT) developed in 28% of subjects. There were 27 episodes of acute nephrotoxicity.

CONCLUSION: The incidence of NODAT in the Indian population is substantially higher than that observed in the Western population. The incidence of nephrotoxicity may indicate higher sensitivity of the Indian population to calcineurin inhibitors.

DOI: 10.4103/2229-3485.210447

PMCID: PMC5543762

PMID: 28828306

Conflict of interest statement: There are no conflicts of interest.

63: Hadda V, Khilnani GC, Kumar R, Dhunguna A, Mittal S, Khan MA, Madan K, Mohan A, Guleria R. Intra- and Inter-observer Reliability of Quadriceps Muscle Thickness Measured with Bedside Ultrasonography by Critical Care Physicians. *Indian J Crit Care Med.* 2017 Jul;21(7):448-452. doi: 10.4103/ijccm.IJCCM_426_16. PubMed PMID: 28808365; PubMed Central PMCID: PMC5538093.

BACKGROUND: Muscle wasting is common among critically ill patients with sepsis and has a significant effect on clinical outcome. However, appropriate tool for measurement of muscle loss is debatable. Ultrasonography (USG) has been used for objective assessment of quadriceps muscle thickness among these patients; however, there is limited data on its reliability.

AIMS AND OBJECTIVE: This study was aimed to assess the reliability of quadriceps muscle thickness as measured by critical care physicians.

METHODOLOGY: This cross-sectional study included twenty patients with sepsis. Quadriceps muscle thickness was measured on right mid-thigh at a predefined point by two critical care fellows using bedside USG. Intra- and inter-observer reliability of the measurements was assessed by intra-class correlation coefficient (ICC).

RESULTS: Hundred and twenty quadriceps muscle thickness measurements, three by each of the two critical care fellows, were done in twenty patients with sepsis. First, second, and third measurements (mean \pm standard deviation) taken by the first observer (RK) were 35.030 ± 3.546 mm, 35.055 ± 3.307 mm, and 35.245 ± 3.027

mm, respectively. The three values recorded by the second observer (AD) were 35.585 ± 3.746 mm, 35.1 ± 3.006 mm, and 34.89 ± 2.556 mm, respectively. ICC for observer 1 and 2 was 0.925 (95% confidence interval [CI]: 0.851-0.967) and 0.835 (95% CI: 0.689-0.925), respectively. The mean difference of measurement between two observers was 0.082 mm (95% CI: -1.194-1.031). The mean ICC (95% CI) for inter-observer reliability was 0.992 (0.979-0.997); $P < 0.001$.

CONCLUSIONS: This study shows that ultrasound is a reliable tool for the measurement of quadriceps muscle thickness by critical care physicians with excellent inter- and intra-class reliability.

DOI: 10.4103/ijccm.IJCCM_426_16

PMCID: PMC5538093

PMID: 28808365

Conflict of interest statement: There are no conflicts of interest.

64: Haldar P. Methodological issues with Sampling Strategy. *Indian J Dermatol.* 2017 Jul-Aug;62(4):427. doi: 10.4103/ijd.IJD_241_17. PubMed PMID: 28794557; PubMed Central PMCID: PMC5527727.

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66: Hooda B, Chouhan RS, Rath GP, Bithal PK, Suri A, Lamsal R. Effect of tranexamic acid on intraoperative blood loss and transfusion requirements in patients undergoing excision of intracranial meningioma. *J Clin Neurosci.* 2017 Jul;41:132-138. doi: 10.1016/j.jocn.2017.02.053. Epub 2017 Mar 7. PubMed PMID: 28283245.

Surgical excision of meningioma is often complicated by significant blood loss requiring blood transfusion with its attendant risks. Although tranexamic acid is used to reduce perioperative blood loss, its blood conservation effect is uncertain in neurosurgery. Sixty adults undergoing elective craniotomy for meningioma excision were randomized to receive either tranexamic acid or placebo, initiated prior to skin incision. Patients in the tranexamic acid group received intravenous bolus of 20mg/kg over 20min followed by an infusion of 1mg/kg/h till the conclusion of surgery. Intraoperative blood loss, transfusion requirements and estimation of surgical hemostasis using a 5-grade scale were noted.

Postoperatively, the extent of tumor excision on CT scan and complications were observed. Demographics, tumor characteristics, amount of fluid infusion, and duration of surgery and anesthesia were comparable between the two groups. The amount of blood loss was significantly less in tranexamic acid group compared to placebo (830mlvs 1124ml; $p=0.03$). The transfusion requirement was less in tranexamic acid group ($p>0.05$). The patients in tranexamic acid group fared better on a 5-grade surgical hemostasis scale with more patients showing good hemostasis ($p=0.007$). There were no significant differences between the groups with regards to extent of tumor removal, perioperative complications, hospital stay or neurologic outcome. To conclude, administration of tranexamic acid significantly reduced blood loss in patients undergoing excision of meningioma. Fewer patients in the tranexamic acid group received blood transfusions. Surgical field hemostasis was better achieved in patients who received tranexamic acid.

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PMID: 28283245

67: Jagannath S, Garg PK. Novel and Experimental Therapies in Chronic Pancreatitis. *Dig Dis Sci*. 2017 Jul;62(7):1751-1761. doi: 10.1007/s10620-017-4604-0. Epub 2017 May 27. Review. PubMed PMID: 28551708.

Chronic pancreatitis (CP) is a progressive inflammatory disease of the pancreas. The currently available treatment of CP is aimed at controlling symptoms and managing complications. Unfortunately, no specific treatment is available to halt the progression of the disease process because the pathophysiological perturbations in CP are not well understood. In this review, we discuss various therapeutic targets and investigational agents acting on these targets. Among these, therapies modulating immune cells and those acting on pancreatic stellate cells appear promising and may translate into clinical benefit in near future. However, these experimental therapies are mostly in animal models and they do not recapitulate all aspects of human disease. Still they may be beneficial in developing effective therapeutic modalities to curb inflammation in chronic pancreatitis.

DOI: 10.1007/s10620-017-4604-0
PMID: 28551708 [Indexed for MEDLINE]

68: Jain R, Quraishi R, Verma A. Evaluation of Dried Urine Spot Method to Screen Cotinine among Tobacco Dependents: An Exploratory Study. *Indian J Psychol Med*. 2017 Jul-Aug;39(4):469-474. doi: 10.4103/IJPSYM.IJPSYM_434_16. PubMed PMID: 28852242; PubMed Central PMCID: PMC5559996.

BACKGROUND AND OBJECTIVES: Assessment of cotinine, a metabolite of nicotine in body fluids, is an important approach for validating the self-report among tobacco users. Adaptation of assays on dried urine spots (DUSs) has advantages of ease of collection, transportation, minimal invasiveness, and requirement of small volume. The aim of the present study was to develop an efficient method for testing cotinine in DUSs and evaluating its clinical applicability.

METHODS: This involved optimization of conditions for detection, recovery, and stability of cotinine from dried urine, spotted on filter paper. Enzyme-linked immunosorbent assay was used for screening, whereas confirmation was done by gas chromatography. For clinical applicability, urine samples of tobacco users were tested.

RESULTS AND INTERPRETATION: Water was found to be a suitable extracting solvent as compared to carbonate-bicarbonate buffer (pH 9.2) and saline. Screening was achieved by two punches taken from a 20 µl (diameter 1.3 cm) spotted urine samples, and confirmation was achieved by five complete circles each of 20 µl sample volume. The recovery was found to be 97% in water. Limit of detection for the method was found to be 100 ng/ml. No signs of significant degradation were found under all storage conditions. All the urine samples of tobacco users were found to be positive by a conventional method as well as DUSs, and the method proved to be efficient.

CONCLUSIONS: DUS samples are a useful alternative for biological monitoring of recent nicotine use, especially in developing countries where sample logistics could be an important concern.

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PMCID: PMC5559996
PMID: 28852242

Conflict of interest statement: There are no conflicts of interest.

69: Jain V, Kumar A, Agarwala A, Vikram N, Ramakrishnan L. Adiponectin, Interleukin-6 and High-sensitivity C-reactive Protein Levels in Overweight/Obese Indian children. *Indian Pediatr.* 2017 Oct 15;54(10):848-850. Epub 2017 Jul 11. PubMed PMID: 28699615.

OBJECTIVE: The aim of our study was to assess serum Adiponectin, Interleukin-6 (IL-6) and high-sensitivity C-reactive protein (hsCRP) levels and their correlation with conventional risk factors for cardiovascular disease and diabetes in overweight/obese Indian children.

METHODS: Body mass index (BMI), waist circumference, blood pressure, fasting serum adiponectin, IL-6, hsCRP, blood glucose, triglycerides, and total and high density lipoprotein cholesterol were measured in children aged 7-15 years with BMI >85th centile.

RESULTS: 84 overweight/obese children (48 boys) with mean (SD) age 10.2 (1.9) years were enrolled. Mean (SD) adiponectin, hsCRP and median (IQR) IL-6 levels were 6.0 (3.1) $\mu\text{g/mL}$, 3.4 (2.4) mg/L and 12.7 (5.0-90.0) pg/mL , respectively. Low adiponectin, high hsCRP and high IL-6 were noted in 16.5%, 49.4% and 54.4% participants, respectively. Adiponectin was inversely correlated with waist circumference, and IL-6 positively with BMI and blood glucose.

CONCLUSION: Inflammatory mediators, hsCRP and IL-6 were elevated in half of the overweight children. Adiponectin and IL-6 correlated well with traditional risk markers.

PMID: 28699615

70: Jat KR, Kabra SK. Is it Useful to Look into Airways in Non-Resolving Pneumonia? *Indian J Pediatr.* 2017 Sep;84(9):660-661. doi: 10.1007/s12098-017-2426-x. Epub 2017 Jul 26. Review. PubMed PMID: 28744709.

71: Jat KR, Khairwa A. Vitamin D and asthma in children: A systematic review and meta-analysis of observational studies. *Lung India.* 2017 Jul-Aug;34(4):355-363. doi: 10.4103/0970-2113.209227. Review. PubMed PMID: 28671167; PubMed Central PMCID: PMC5504893.

There is growing literature suggesting a link between Vitamin D deficiency and asthma in children, but systematic reviews are lacking. The aim of this study is to evaluate the prevalence of Vitamin D deficiency in asthmatic children and to assess the correlations of Vitamin D levels with asthma incidence, asthma control, and lung functions. PubMed, EMBASE, and Cochrane Library were searched for observational studies on asthma and Vitamin D. Two authors independently extracted data. Meta-analysis was performed using the Review Manager Software. A total of 23 (11 case-control, 5 cohort, and 7 cross-sectional) studies enrolling 13,160 participants were included in the review. Overall, Vitamin D deficiency and insufficiency were prevalent in 28.5% and 26.7% children with asthma, respectively. The mean 25-hydroxyvitamin D (25(OH)D) levels (10 studies) were significantly lower in asthmatic children as compared to nonasthmatic children with a mean difference of -9.41 (95% confidence interval [CI] -16.57, -2.25). The odds ratio of Vitamin D deficiency (eight case-control studies) was significantly higher among asthmatic children as compared to nonasthmatic children (odds ratio 3.41; 95% CI 2.04, 5.69). Correlations between Vitamin D levels and incidence of asthma, lung functions, and control of asthma had mixed results. To conclude, asthmatic children had lower 25(OH)D levels as compared to nonasthmatic children, but the correlations between 25(OH)D and asthma incidence, asthma control, and lung functions were varied. Well-designed randomized controlled trials are

required to determine if children with asthma can benefit from Vitamin D supplementation.

DOI: 10.4103/0970-2113.209227

PMCID: PMC5504893

PMID: 28671167

72: Jialal I, Vikram N. Nutrition therapy for diabetes: Implications for decreasing cardiovascular complications. *J Diabetes Complications*. 2017 Oct;31(10):1477-1480. doi: 10.1016/j.jdiacomp.2017.07.008. Epub 2017 Jul 26. PubMed PMID: 28830659.

73: John R, Dhillon MS, Khurana A, Aggarwal S, Kumar P. Tension Band Wiring Is As Effective As A Compression Screw In A Neglected, Medial Maleolus Non-Union: A Case-Based Discussion & Literature Review. *J Orthop Case Rep*. 2017 Jul-Aug;7(4):72-75. doi: 10.13107/jocr.2250-0685.860. PubMed PMID: 29181360; PubMed Central PMCID: PMC5702712.

Introduction: Isolated, neglected medial malleolus nonunion cases are a rare entity in orthopedic literature. All studies (except one) have described the use of compression screws (with or without plates) for medial malleolar nonunion management. In acute fractures, tension band wiring (TBW) has shown excellent results both in biomechanical and in clinical studies. On the contrary, it has seldom been used in nonunion or in neglected cases.

Case Report: We describe a 6-month-old neglected medial malleolus gap nonunion case who presented with progressive pain and limp. TBW with a monoblock, inlay, tricortical, and iliac crest bone graft for the defect was performed. The fracture united within 12 weeks and patient went back to his normal work routine; on the latest follow-up at 3 years, the patient was asymptomatic with no clinicoradiologic signs of secondary osteoarthritis of the ankle joint.

Conclusion: TBW may be better than screw fixation in the management of medial malleolus nonunion as it is technically straightforward and cost-effective, can provide equal or more compression than a screw; it does not damage the sandwiched inlay bone graft, and the amount of compression is surgeon-controlled. It is also more suitable for fractures with small distal fragments and/or osteoporosis.

DOI: 10.13107/jocr.2250-0685.860

PMCID: PMC5702712

PMID: 29181360

74: Kakkar A, Rajeshwari M, Nalwa A, Suri V, Sarkar C, Chakrabarty B, Gulati S, Sharma MC. Childhood macrophagic myofasciitis: A series from the Indian subcontinent. *Muscle Nerve*. 2017 Jul;56(1):71-77. doi: 10.1002/mus.25467. Epub 2017 Feb 15. PubMed PMID: 27859369.

INTRODUCTION: Macrophagic myofasciitis (MMF) is a rare disorder, reported mainly in European adults, with occasional childhood cases. We report a series of 6 patients with pediatric MMF from the Indian subcontinent.

METHODS: Clinical details, creatine kinase levels, and results of electromyography are described for patients diagnosed with MMF. Fresh-frozen and formalin-fixed muscle biopsies were evaluated by hematoxylin-eosin staining, histochemistry, immunohistochemistry, and electron microscopy.

RESULTS: Six of 2,218 muscle biopsies were diagnosed as MMF; patient charts were reviewed. The 6 patients were all children; all presented with hypotonia and/or motor delay. Mean age at diagnosis was 16.2 months. There were 4 boys and 2 girls. All had a history of hepatitis B vaccination. Histopathology revealed

infiltration by sheets of large periodic acid-Schiff stain-positive histiocytes. Ultrastructural examination demonstrated needle-shaped crystals within histiocytes. One patient had a co-existent neuromuscular disorder, merosin-deficient congenital muscular dystrophy. CONCLUSIONS: MMF is a rare inflammatory myopathy that should be considered in the differential diagnosis of congenital myopathies in children. Muscle Nerve 56: 71-77, 2017.

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DOI: 10.1002/mus.25467

PMID: 27859369 [Indexed for MEDLINE]

75: Kale P, Sahu M, Verma N, Mirdha BR. Association of Three H - Hookworm, Hemosuccus Pancreaticus, and Hypertension (Portal) in a Patient with Melena. J Glob Infect Dis. 2017 Jul-Sep;9(3):120-122. doi: 10.4103/jgid.jgid_177_16. PubMed PMID: 28878525; PubMed Central PMCID: PMC5572197.

Hookworm infestations, endemic in India, are a common cause of iron deficiency anemia. Hemosuccus pancreaticus, a rare clinical condition, is due to passage of blood into the pancreatic duct possibly through a route between an aneurysm of an artery close to the pancreas and/or pancreatic duct, leading to gastrointestinal (GI) bleeding. Portal hypertensive upper GI bleed is also known since long. We report a case of a 38-year-old male with a history of alcoholism who was being investigated for GI bleeding who had concomitant hookworm infestation, hemosuccus pancreaticus as well as portal hypertension. To the best of our knowledge, this is the first report of common occurrence of hemosuccus pancreaticus and portal hypertension with hookworm infection. This case signifies the importance of infectious causes of GI bleeding to be considered even in cases where anatomic malformations or pathophysiological alterations are predominant.

DOI: 10.4103/jgid.jgid_177_16

PMCID: PMC5572197

PMID: 28878525

Conflict of interest statement: There are no conflicts of interest.

76: Kalra S, Verma K, Balhara YPS. Thyro-stress. Indian J Endocrinol Metab. 2017 Jul-Aug;21(4):632-633. doi: 10.4103/ijem.IJEM_136_17. PubMed PMID: 28670550; PubMed Central PMCID: PMC5477454.

Our understanding of the biopsychosocial model of health, and its influence on chronic endocrine conditions, has improved over the past few decades. We can distinguish, for example, between diabetes distress and major depressive disorders in diabetes. Similar to diabetes distress, we suggest the existence of "thyrostress" in chronic thyroid disorders. Thyro-stress is defined as an emotional state, characterized by extreme apprehension, discomfort or dejection, caused by the challenges and demand of living with thyroid disorders such as hypothyroidism. This communication describes the etiology, clinical features, differential diagnosis, and management of thyro-stress.

DOI: 10.4103/ijem.IJEM_136_17

PMCID: PMC5477454

PMID: 28670550

Conflict of interest statement: There are no conflicts of interest.

77: Kalra S, Singh Balhara YP. Betel quid (Paan) and diabetes care. J Pak Med Assoc. 2017 Jul;67(7):1119-1120. PubMed PMID: 28770901.

This communication focuses on an important, yet neglected, aspect of medicine, which has an impact on diabetes care as well. Betel quid (paan) chewing is a commonly encountered, socioculturally accepted, "culture-bound" addictive disorder. Betel quid chewing has unwanted psychotropic, carcinogenic and dysmetabolic effects. Thus, it should be discouraged as strongly as tobacco use. This communication calls for raised awareness among physicians and community leaders regarding this addictive disorder, and highlight the need for research on this topic.

PMID: 28770901

78: Kamal K, Amit S, Kanwaljeet S, Ravi R, Hareram P, Ravi K, Kumar KV, Pravas M, Renu S. Association of genetic polymorphisms with plasma TFPI level: Boon or curse for DVT patients - Study from India. Blood Cells Mol Dis. 2017 Jul;66:31-36. doi: 10.1016/j.bcmd.2017.08.003. Epub 2017 Aug 6. PubMed PMID: 28810169.

Low plasma TFPI levels have been associated with an increased risk of DVT; however its association with TFPI gene polymorphisms is controversial and not yet studied in India. The aim of our study was to analyze prevalence of TFPI gene polymorphisms, evaluate their effects on its plasma levels and determine its association with DVT. Plasma level and genetic polymorphisms (33T>C, 399C>T and 536C>T) of TFPI were screened in subjects (100 DVT patients and 100 controls). Mean TFPI level in patients was significantly lower than controls (Patients: 33.55±11.72ng/ml, Controls: 48.05±13.68ng/ml, p<0.001). DVT patients had significantly higher prevalence of 399C>T (p=0.001, ORa: 5.69, CI: 1.14-28.46) and lower prevalence of 33T>C polymorphism (p<0.001, ORa: 0.239, CI: 0.065-0.871). The wild type (TT genotype) of 33T>C and variant form (CT and TT genotype) of 399C>T polymorphism was significantly associated with low TFPI levels. TFPI 536C>T polymorphism was absent in all subjects. In conclusion, dual nature of TFPI gene polymorphisms were established in our association study; 33T>C being protective and 399C>T as an important risk factor in Indian DVT patients, probably mediated by alteration in TFPI levels. These findings may prove a vital role in risk stratification and treatment of DVT.

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DOI: 10.1016/j.bcmd.2017.08.003
PMID: 28810169

79: Karthik SDS, Kriplani A, Mahey R, Kachhawa G. Successful Reproductive Outcome After Laparoscopic Strassmann's Metroplasty. J Hum Reprod Sci. 2017 Jul-Sep;10(3):231-234. doi: 10.4103/jhrs.JHRS_11_17. PubMed PMID: 29142454; PubMed Central PMCID: PMC5672731.

Mullerian anomalies cause a significant impact on the reproductive outcomes. A bicornuate uterus is a type of lateral fusion defect, which constitutes 26% of all uterine anomalies. Strassmann's metroplasty is a unification procedure performed to correct the two smaller uterine cavities into a more spacious single cavity. Improved reproductive performance was reported after unification metroplasty. Laparoscopic route can be adopted for this procedure with all the advantages of minimally invasive surgery. Here, we report a success story of a

woman who suffered with six miscarriages and secondary infertility who underwent laparoscopic Strassmann's metroplasty in a tertiary care center and later delivered a baby by caesarean section.

DOI: 10.4103/jhrs.JHRS_11_17

PMCID: PMC5672731

PMID: 29142454

Conflict of interest statement: There are no conflicts of interest.

80: Kashani K, Macedo E, Burdmann EA, Hooi LS, Khullar D, Bagga A, Chakravarthi R, Mehta R. Acute Kidney Injury Risk Assessment: Differences and Similarities Between Resource-Limited and Resource-Rich Countries. *Kidney Int Rep.* 2017 Jul;2(4):519-529. doi: 10.1016/j.ekir.2017.03.014. Epub 2017 Apr 25. PubMed PMID: 28845471; PubMed Central PMCID: PMC5568820.

81: Khandelwal A, Singh GP, Kharwar RK, Deganwa M. An iron rod restricting access to airway: an unusual presentation. *Anaesthesiol Intensive Ther.* 2017;49(3):241-242. doi: 10.5603/AIT.a2017.0032. Epub 2017 Jul 16. PubMed PMID: 28712107.

The incidence of acute kidney injury (AKI) among acutely ill patients is reportedly very high and has vexing consequences on patient outcomes and health care systems. The risks and impact of AKI differ between developed and developing countries. Among developing countries, AKI occurs in young individuals with no or limited comorbidities, and is usually due to environmental causes, including infectious diseases. Although several risk factors have been identified for AKI in different settings, there is limited information on how risk assessment can be used at population and patient levels to improve care in patients with AKI, particularly in developing countries where significant health disparities may exist. The Acute Disease Quality Initiative consensus conference work group addressed the issue of identifying risk factors for AKI and provided recommendations for developing individualized risk stratification strategies to improve care. We proposed a 5-dimension, evidence-based categorization of AKI risk that allows clinicians and investigators to study, define, and implement individualized risk assessment tools for the region or country where they practice. These dimensions include environmental, socioeconomic and cultural factors, processes of care, exposures, and the inherent risks of AKI. We provide examples of these risks and describe approaches for risk assessments in the developing world. We anticipate that these recommendations will be useful for health care providers to plan and execute interventions to limit the impact of AKI on society and each individual patient. Using a modified Delphi process, this group reached consensus regarding several aspects of AKI risk stratification.

DOI: 10.1016/j.ekir.2017.03.014

PMCID: PMC5568820

PMID: 28845471

Conflict of interest statement: DISCLOSURE All the authors declared no competing interests.

82: Khandelwal SK, Bhatia A, Mishra AK. Psychological adaptation of Indian expeditioners during prolonged residence in Antarctica. *Indian J Psychiatry.* 2017 Jul-Sep;59(3):313-319. doi: 10.4103/psychiatry.IndianJPsychiatry_296_16. PubMed PMID: 29085090; PubMed Central PMCID: PMC5659081.

BACKGROUND: In view of the growing human activities in Antarctica and increasing exposure of humans to prolonged isolation under extreme conditions, such as space travel and deep sea diving, it is necessary to study the psychological adaptation to such an environment. The current study aimed to assess the psychological adaptation of Indian expeditioners to prolonged residence in Antarctica.

MATERIALS AND METHODS: Twenty-four winter team members of 27th Indian Scientific Expedition to Antarctica were administered seven instruments 5 times during the expedition. The instruments measured cognition and memory, general psychological health and tobacco, and alcohol consumption.

RESULTS: Alcohol consumption was maximum during the initial days of arrival on the continent and decreased thereafter, with another spike during the peak of the winter season. Externalized psychological reactions peaked during the midwinter period. Anxiety and insomnia peaked during the coldest period whereas depressive symptoms did not change throughout the expedition. Cognition was at its worst during the final phase of Antarctic residence. No significant change was noted in the third quarter of wintering.

CONCLUSION: Each phase of Antarctic residence could be equated with a particular stage in psychological adaptation. There was no third quarter phenomenon.

DOI: 10.4103/psychiatry.IndianJPsychiatry_296_16

PMCID: PMC5659081

PMID: 29085090

Conflict of interest statement: There are no conflicts of interest.

83: Khanduja S, Takkar B, Khanduja N, Venkatesh P. Post-transplant erythrocytosis-related maculopathy: successful management of hyperviscosity with phlebotomy. *Int Ophthalmol*. 2017 Jul 29. doi: 10.1007/s10792-017-0660-x. [Epub ahead of print] PubMed PMID: 28756498.

PURPOSE: To report clinical features in a case of hyperviscosity retinopathy following post-renal transplant erythrocytosis (PTE) and its outcome after phlebotomy.

METHODS: Fundus fluorescein angiography and optical coherence tomography (OCT) were carried out for a 29-year-old renal allograft recipient who presented with acute unilateral visual loss.

RESULT: There was mild retinal vascular dilation in both eyes with retinal hemorrhages and retinal opaqueness in left eye. Cystoid macular edema was noted on OCT. Microvascular leaks and micro-occlusions were seen all around the foveal avascular zone on fluorescein angiogram. Investigations revealed hemoglobin to be 16.8 g%, and a PTE was diagnosed. The patient underwent phlebotomy following which there was near complete resolution of macular edema with improvement in vision.

CONCLUSION: Hyperviscosity retinopathy can cause acute visual loss in cases of renal allograft recipients who develop PTE. Prompt management with phlebotomy can lead to reversal of macular edema in such cases.

DOI: 10.1007/s10792-017-0660-x

PMID: 28756498

84: Khanna M, Rawat N, Gupta A, Nagappa M, Taly AB, Rukmani MR, Sathyaprabha TN, Haldar P. Pulmonary Involvement in Patients with Guillain-Barré Syndrome in Subacute Phase. *J Neurosci Rural Pract*. 2017 Jul-Sep;8(3):412-416. doi: 10.4103/jnrp.jnrp_11_17. PubMed PMID: 28694622; PubMed Central PMCID: PMC5488563.

OBJECTIVES: To evaluate the pulmonary function in Guillain-Barre syndrome (GBS)

patients in subacute phase and find clinical correlates of pulmonary dysfunction. METHODS: This was a single-center, prospective, cross-sectional, hospital-based study in GBS patients performed in Department of Neurological Rehabilitation at a tertiary care institute. Clinical examination for pulmonary function was done by measuring chest expansion. The pulmonary function tests were carried out by Spirometry kit Microquark Cosmed, Italy. Fatigue was assessed by Fatigue Severity Scale, disability status by Hughes Disability Scale (HDS), and muscle weakness by Medical Research Council sum scores.

STATISTICAL ANALYSIS: Statistical analysis was performed by Stata 11. The significance of P value was adjudged against an alpha of 0.05.

RESULTS: Twenty-eight patients were included with 17 (61%) men and mean age of 31 years. Median duration of symptoms was 16.5 days. There were 10 (36%) demyelinating and 18 (64%) axonal variants. Twenty-six (93%) patients scored more than 2 on HDS. All study participants reported fatigue. Twenty-two (78.6%) patients had chest expansion of <2.5 cm. Spirometry showed restrictive pulmonary dysfunction in 23 (79%) patients. Significant correlation was found between abnormal pulmonary function test and chest expansion ($P = 0.003$).

CONCLUSION: Pulmonary dysfunction in GBS is common even during subacute phase. It needs to be identified and managed appropriately for better clinical outcome.

DOI: 10.4103/jnrrp.jnrrp_11_17

PMCID: PMC5488563

PMID: 28694622

Conflict of interest statement: There are no conflicts of interest.

85: Khurana S, Mathur P, Kapil A, Valsan C, Behera B. Molecular epidemiology of beta-lactamase producing nosocomial Gram-negative pathogens from North and South Indian hospitals. *J Med Microbiol.* 2017 Jul;66(7):999-1004. doi: 10.1099/jmm.0.000513. Epub 2017 Jul 13. PubMed PMID: 28671522.

PURPOSE: Resistant Gram-negative bacterial (GNB) infections, apart from tremendously escalating the cost of treatment, are a cause for substantial morbidity and mortality among hospitalized patients. Such bacteria are rapidly acquiring resistance to many antimicrobial agents, especially the beta-lactams which are the most frequently prescribed antimicrobials in hospital and community patient care settings, and now also to colistin; a last-line drug to treat infections with such bacteria. The greatest threat to antimicrobial treatment is the production of metallo beta-lactamases, and plasmid-mediated serine carbapenemases.

METHODOLOGY: We conducted a two-year study to observe the pattern of beta-lactamase enzyme production (extended spectrum beta-lactamases (ESBLs), AmpC and carbapenemases) among the nosocomial GNB isolated from intensive care units (ICUs) of North and South Indian hospitals. A total of 761 non-duplicate GNB were included in the study from North (554; 73%) and South India (207; 27%). All strains were subjected to Clinical and Laboratory Standards Institute (CLSI) recommended screening tests for detection of beta-lactamase production, followed by polymerase chain reaction (PCR)-based detection of clinically important beta-lactamase genes mediating resistant phenotypes among these isolates.

RESULTS: Out of the 761 GNB, *Acinetobacter* spp., *Klebsiella* spp., *Pseudomonas* spp., *Enterobacter* spp. and others were 27, 23, 21, 17, 5 and 7% respectively. A high prevalence of ESBL was found across all genera in these strains. The carbapenem resistance was higher in North than in South Indian GNB. The level of AmpC production was comparatively lower in both North and South Indian strains.

CONCLUSION: Beta-lactamases showed tremendous variation in geographic distribution. Thus, their detection and characterization is important from a

clinical-epidemiological, laboratory and infection control point of view. Knowledge of this epidemiology can predict the empiric antimicrobial treatment.

DOI: 10.1099/jmm.0.000513

PMID: 28671522 [Indexed for MEDLINE]

86: Kotru M, Munjal SS, Mutreja D, Kumar G, Singh M, Seth T, Pati HP. Severity of anemia and hemostatic parameters are strong predictors of outcome in postoperative neurosurgical patients. *Asian J Neurosurg*. 2017 Jul-Sep;12(3):489-493. doi: 10.4103/1793-5482.180940. PubMed PMID: 28761529; PubMed Central PMCID: PMC5532936.

OBJECTIVE: Post-operative neurosurgical patients are commonly associated with haemostatic derangements; many a times leading to development of overt disseminated intravascular coagulation (DIC) and eventually death in some of them. The present study has analysed the factors that would predict the outcome in post operative neurosurgical patients with deranged haemostatic parameters. **METHODS:** This is a prospective, descriptive study over a period of 15 months on 115 post operative neurosurgical patients who were clinically suspected to have DIC and investigated for the haemostatic parameters. Patients with at least one parameter abnormal were included in the study and complete data was available in 85 patients was analysed.

RESULTS: Majority of deaths (22/33, 66.7%) were related to bleeding and end organ failure attributed to DIC. The most common haemostatic abnormalities found were thrombocytopenia with prolonged Prothrombin time (PT) in 48/115 (42.7%) patients. The parameters found significantly different between those who survived and those died were age, post-operative development of chest infections, severe anemia, and renal function abnormalities. Also, patient outcome correlated strongly with marked prolongation of prothrombin time (PT) and Partial thromboplastin time (PTT). However, presence of ≥ 3 coagulation abnormalities, presence of significant drop in haemoglobin post operatively and /or development of chest infection predicted death in postoperative neurosurgical patients with accuracy of 80.4% and this was highly significant ($P = 0.000$).

CONCLUSION: Presence of ≥ 3 coagulation abnormalities, significant drop in hemoglobin post operatively and /or development of chest infection post-operatively were strong predictors of death in postoperative neurosurgical patients.

DOI: 10.4103/1793-5482.180940

PMCID: PMC5532936

PMID: 28761529

Conflict of interest statement: There are no conflicts of interest.

87: Kumar A, Bakhshi S, Agarwala S. Is Pre-operative Chemotherapy Desirable in all Patients of Wilms' Tumor? *Indian J Pediatr*. 2017 Sep;84(9):709-714. doi: 10.1007/s12098-017-2410-5. Epub 2017 Jul 8. PubMed PMID: 28687950.

The timing and role of chemotherapy in the management of Wilms' tumor has long been the matter of debate, with different groups showing equally comparable and encouraging results. Over the last decade, however, both the ideologies seem to be converging and the attempt has been to identify groups benefitting with pre-operative chemotherapy, as well as those, where upfront resection should be attempted. In this article authors intend to discuss pros and cons of both the strategies and their applicability in a resource poor setting in developing countries like India.

DOI: 10.1007/s12098-017-2410-5
PMID: 28687950

88: Kumar A, Bhavsar C, Aggarwal P, Jamshed N. Toxic Brain Injury with Nitrobenzene Poisoning. *Int J Appl Basic Med Res*. 2017 Jul-Sep;7(3):207-209. doi: 10.4103/ijabmr.IJABMR_271_16. PubMed PMID: 28904926; PubMed Central PMCID: PMC5590389.

Acute methemoglobinemia secondary to nitrobenzene ingestion is a rare but well-known clinical entity. It is extremely important to identify such patients as rapid and effective management with methylene blue and other supportive measures will often save these lives. We present a rare and unfortunate case of a girl who developed acute toxic brain injury following nitrobenzene ingestion and succumbed.

DOI: 10.4103/ijabmr.IJABMR_271_16
PMCID: PMC5590389
PMID: 28904926

Conflict of interest statement: There are no conflicts of interest.

89: Kumar A, Misra S, Sagar R, Kumar P, Yadav AK, Talwar P, Raj R, Prasad K. Relationship between Factor V Leiden Gene Variant and Risk of Ischemic Stroke: A Case-Control Study. *Ann Indian Acad Neurol*. 2017 Jul-Sep;20(3):284-288. doi: 10.4103/aian.AIAN_31_17. PubMed PMID: 28904463; PubMed Central PMCID: PMC5586126.

BACKGROUND: Factor V Leiden is the most common genetic variation among the blood coagulation pathway which leads to prothrombotic state, therefore, is considered an important gene for understating the stroke mechanism.

AIM: The aim of the present study is to determine the relationship between single nucleotide polymorphism at G1691A position of Factor V gene and risk of ischemic stroke (IS) in North Indian population.

MATERIALS AND METHODS: In a retrospective case-control study, 250 patients with IS and 250 age- and gender-matched controls were enrolled in the period of October 2012 to September 2014 from in- and out-patient department of Neurology, All India Institute of Medical Sciences, New Delhi, India. Deoxyribonucleic acid for each case and control was isolated from peripheral blood using phenol-chloroform extraction method. Polymerase chain reaction-restriction fragment length polymorphism method was used to determine the polymorphism. Data were analyzed using STATA Software Version 13.

RESULTS: The mean age of IS patient was 52.8 ± 12.5 years and in control group was 50.97 ± 12.7 years. Genotypic frequency distributions were in accordance with Hardy-Weinberg equilibrium in both cases and controls. As expected hypertension, diabetes, dyslipidemia, smoking, heavy alcohol intake, family history of stroke, and poor economic status were significantly associated with the risk of IS. Multivariate analysis revealed 5.17 times higher odds for developing the risk of large vessel subtype of IS in patients carrying Factor V Leiden G1691A gene variation as compared to control subjects (OR, 5.17; 95% CI, 1.32-20.3, P = 0.01).

CONCLUSION: The present study suggests that Factor V Leiden G1691A polymorphism may be significantly associated with the risk of large vessel subtype of IS. Large sample size studies using prospective cohort designs are required to corroborate the present findings.

DOI: 10.4103/aian.AIAN_31_17
PMCID: PMC5586126
PMID: 28904463

Conflict of interest statement: There are no conflicts of interest.

90: Kumar A, Sinha C, Kumar A, Kumari P. Ultrasound-guided adductor and sciatic nerve block: Two in one approach at mid-thigh level. *Saudi J Anaesth.* 2017 Jul-Sep;11(3):368-370. doi: 10.4103/1658-354X.206808. PubMed PMID: 28757853; PubMed Central PMCID: PMC5516515.

91: Kumar A, Ravani R, Mehta A, Simakurthy S, Dhull C. Outcomes of microscope-integrated intraoperative optical coherence tomography-guided center-sparing internal limiting membrane peeling for myopic traction maculopathy: a novel technique. *Int Ophthalmol.* 2017 Jul 4. doi: 10.1007/s10792-017-0644-x. [Epub ahead of print] PubMed PMID: 28676991.

PURPOSE: To evaluate the outcomes of pars plana vitrectomy (PPV) with microscope-integrated intraoperative optical coherence tomography (I-OCT)-guided traction removal and center-sparing internal limiting membrane (cs-ILM) peeling. **METHODS:** Nine eyes with myopic traction maculopathy as diagnosed on SD-OCT underwent PPV with I-OCT-guided cs-ILM peeling and were evaluated prospectively for resolution of central macular thickness (CMT) and improvement in best-corrected visual acuity (BCVA), and complications, if any, were noted. All patients were followed up for more than 9 months.

RESULTS: Resolution of the macular retinoschisis was seen in all nine eyes on SD-OCT. At 36 weeks, there was a significant improvement in mean BCVA from the preoperative BCVA ($P = 0.0089$) along with a reduction in the CMT from 569.77 ± 263.19 to 166.0 ± 43.91 μm ($P = 0.0039$). None of the eyes showed worsening of BCVA or development of full-thickness macular hole in the intraoperative or follow-up period.

CONCLUSION: PPV with I-OCT-guided cs-ILM peeling helps in complete removal of traction, resolution of retinoschisis and good functional recovery with low intraoperative and postoperative complications.

DOI: 10.1007/s10792-017-0644-x
PMID: 28676991

92: Kumar A, Kakkar P, Ravani RD, Markan A. Utility of microscope-integrated optical coherence tomography (MIOCT) in the treatment of myopic macular hole retinal detachment. *BMJ Case Rep.* 2017 Jul 14;2017. pii: bcr-2016-217671. doi: 10.1136/bcr-2016-217671. PubMed PMID: 28710187.

Macular hole-associated retinal detachment in high myopia is described as a final stage in progression of myopic traction maculopathy (MTM).¹ Shimada et al⁴ described the progressive stages of MTM from macular retinoschisis to serous retinal detachment in high myopia. Stage 4 MTM is characterised as disappearance of retinoschisis with progression to retinal detachment due to macular hole formation. It is hypothesised that vitreoschisis and abnormal vitreo-retinal interface create the premacular tangential traction.^{5 6} Intraoperative triamcinolone acetonide is used to visualise the residual posterior vitreous cortex (PVC). We hereby describe the utility of microscope-integrated optical coherence tomography (MIOCT) in assisting complete removal of PVC and internal limiting membrane (ILM) peeling with multilayered inverted ILM flap in the treatment of myopic macular hole retinal detachment. MIOCT helped identify vitreoschisis and confirm the position of ILM flaps over the macular hole intraoperatively.

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PMID: 28710187

Conflict of interest statement: Competing interests: None declared.

93: Kumar A, Ravani R. Using intravitreal bevacizumab (Avastin®) - Indian Scenario. *Indian J Ophthalmol*. 2017 Jul;65(7):545-548. doi: 10.4103/ijo.IJO_431_17. PubMed PMID: 28724808; PubMed Central PMCID: PMC5549403.

94: Kumar KR, Sinha R, Chandiran R, Pandey RK, Darlong V, Chandralekha. Evaluation of optimum time for intravenous cannulation after sevoflurane induction of anesthesia in different pediatric age groups. *J Anaesthesiol Clin Pharmacol*. 2017 Jul-Sep;33(3):371-374. doi: 10.4103/joacp.JOACP_58_16. PubMed PMID: 29109638; PubMed Central PMCID: PMC5672536.

Background and Aims: The ideal time for intravenous (IV) cannulation following inhalational induction in children is debatable. The effect of age on this time has not been studied. We evaluated the optimum time for IV cannulation after sevoflurane induction of anesthesia in different pediatric age groups.

Material and Methods: A prospective interventional study based on Dixon's sequential up and down method was conducted in children of age 1-10 years. They were grouped according to their age - Group 1: 1-3 years, Group 2: >3-7 years, and Group 3: >7-10 years. Anesthesia was induced with 8% sevoflurane in 5 L of 100% oxygen. IV cannulation was attempted at 3.5 min in the first child in each group. The time for cannulation in the next child was stepped up or down by 30 s depending on positive or negative response, respectively, in the previous child. Children were recruited till a minimum of six pairs of failure-success sequence which was obtained in each group. The mean of midpoints of the failure-success sequence was calculated to obtain the time for cannulation in 50% of the children in each group.

Results: Total number of children in Groups 1, 2, and 3 were 24, 23, and 24, respectively. The mean (95% confidence level) time for IV cannulation after sevoflurane induction in Groups 1, 2, and 3 was 53.6 (40.0-67.1), 105 (62.6-147.4), and 143.6 (108.8-178.4) s, respectively. This time was significantly shorter in Group 1 compared to those in Groups 2 and 3.

Conclusion: The optimum time for IV cannulation in 50% of the children after sevoflurane induction of anesthesia was shorter in children of age 1-3 years than in older children.

DOI: 10.4103/joacp.JOACP_58_16

PMCID: PMC5672536

PMID: 29109638

Conflict of interest statement: There are no conflicts of interest.

95: Kumar M, Arora G, Damle NA, Kumar P, Tripathi M, Bal C, Taywade SK, Singhal A. Comparison between Two-sample Method with (99m)Tc-diethylenetriaminepentaacetic acid, Gates' Method and Estimated Glomerular Filtration Rate Values by Formula Based Methods in Healthy Kidney Donor Population. *Indian J Nucl Med*. 2017 Jul-Sep;32(3):188-193. doi: 10.4103/ijnm.IJNM_17_17. PubMed PMID: 28680201; PubMed Central PMCID: PMC5482013.

PURPOSE OF THE STUDY: Glomerular filtration rate (GFR) is the most important parameter for the assessment of renal function. GFR by plasma sampling technique is considered accurate in the selection of donors for renal transplantation. Estimated GFR (eGFR) calculations using Gates' method and Modification of Diet in Renal Disease (MDRD) and Cockcroft-Gault (CG) equations are simple methods but have not been validated in the Indian population. Hence, we aimed to assess the correlation between these three techniques.

MATERIALS AND METHODS: The plasma sampling technique was done using two samples at 60 and 180 min after injection of 1 mCi (37MBq) ^{99m}Tc -diethylenetriaminepentaacetic acid (^{99m}Tc -DTPA) in 66 healthy donors. Age, sex, height, weight, and plasma creatinine were recorded. Normalized GFR (nGFR) by two-sample method and eGFR (for Gates', MDRD, and CG) values were calculated using formulae.

RESULTS: There were 14 male and 52 female donors. Mean age was 46.56 ± 12.88 years (24-69 years). Mean height was 153.74 ± 8.35 cm, whereas mean weight was 56.97 ± 11.88 kg. Mean nGFR value was 80.4 for two-sample method while mean eGFR value for Gates', CG, and MDRD were 83.3, 89.36, and 97.47 ml/min/1.73 m² (eligibility value at our institution = 70), respectively. While the correlation between nGFR and eGFR CG and MDRD was weak moderate (correlation coefficient = 0.5), nGFR and eGFR Gates' had a moderate correlation (0.686). Mean total bias for eGFR Gates', CG, and MDRD were 2.87, 8.93, and 17.0, respectively. P30 of eGFR Gates', CG and MDRD were 60.6%, 57.6%, and 62.1%, respectively.

CONCLUSIONS: Due to the large variability in eGFR Gates', CG and MDRD, nGFR estimation using the plasma sampling technique with ^{99m}Tc -DTPA appears necessary while screening healthy donors for renal transplantation.

DOI: 10.4103/ijnm.IJNM_17_17

PMCID: PMC5482013

PMID: 28680201

Conflict of interest statement: There are no conflicts of interest.

96: Kumar N, Kaushal A, Dev Soni K, Tomar GS. A rare case of malposition of central venous catheter detected by ultrasonography-guided saline flush test. *BMJ Case Rep.* 2017 Jul 6;2017. pii: bcr-2017-220657. doi: 10.1136/bcr-2017-220657. PubMed PMID: 28687699.

Central venous catheter (CVC) insertion is associated with many potential complications; malposition of the catheter is one of them. A chest X-ray is routinely done to detect the malposition of catheter, but sometimes it has been seen that X-ray is time-consuming and its accuracy is also low for determining the exact position of the catheter tip. In our case, an ultrasonography (USG)-guided CVC was placed into the right internal jugular vein of the patient. As there was no ECG change obtained during insertion of guidewire and catheter, malposition was suspected, which was easily detected by a novel USG-guided saline flush test. We present a case report where USG was used for detection of a misplaced CVC (from right internal jugular vein to right subclavian vein). With ultrasound, the location of the catheter tip can be confirmed in very less time compared with chest X-ray.

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DOI: 10.1136/bcr-2017-220657

PMID: 28687699

Conflict of interest statement: Competing interests: None declared.

97: Kumar P, Bhari N, Gupta V, Ramachandran VG, Arava S, Dar L, Sharma VK, Verma KK, Dwivedi SN, Gupta S. Atypical morphology of anogenital warts is not a marker of atypical histology or of infection to the high-risk human papillomavirus genotypes. *Int J Dermatol*. 2017 Oct;56(10):1017-1021. doi: 10.1111/ijd.13711. Epub 2017 Jul 25. PubMed PMID: 28741750.

BACKGROUND: The clinical morphology of anogenital warts may vary from flat, filiform, papular, or verrucous to giant condyloma acuminatum. Clinically atypical-looking genital warts may alarm the clinician because of their suspected malignant potential, which may cause anxiety, often leading to aggressive interventions.

OBJECTIVE: To study if clinically atypical-looking anogenital warts are more likely to be premalignant or malignant as compared to typical warts.

METHOD: Data of 41 (37 males, 4 females) patients with anogenital warts was retrospectively analyzed. After a detailed literature review and in-house discussions, criteria for anogenital warts with typical and atypical clinical morphology were defined. Clinical photographs were independently reviewed by three dermatologists, and human papillomavirus (HPV) genotyping results, histological evaluation, and immunohistochemical analysis for p53 expression were evaluated.

RESULTS: Fifteen (36.6%) anogenital warts were classified as atypical by at least two of three blinded dermatologists. The histological examination showed mitotic figures in 31/41 (75.6%) specimens, dysplasia in 14/41 (44.1%) specimens, and p53 positivity in 34/41 (82.9%) specimens. There was no significant difference in the high-risk HPV genotyping ($P = 0.67$), frequency of dysplastic changes on histology ($P = 0.19$), and immunohistochemistry with p53 ($P = 0.08$) between clinically typical and atypical-appearing anogenital warts. Similarly, no significant difference was found in the frequency of dysplastic changes ($P = 0.67$) or p53 expressions ($P = 0.41$) based on the HPV genotypes.

CONCLUSIONS: The atypical clinical morphology of anogenital warts may not be a marker of increased malignant potential. High-risk HPV genotypes do not have a statistically significant association with dysplasia or positive immunohistochemistry with p53.

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DOI: 10.1111/ijd.13711
PMID: 28741750

98: Kumar P, Ravani R, Kakkar P, Sharma A, Kumar A. Crystalline retinopathy association with flupentixol intake. *Int Ophthalmol*. 2017 Jul 4. doi: 10.1007/s10792-017-0624-1. [Epub ahead of print] PubMed PMID: 28676993.

AIM: To report the first case report of an association between flupentixol and crystalline retinopathy.

STUDY DESIGN: Observational, Case report.

CASE REPORT: We report a case of crystalline retinopathy in a 36-year-old female who was suffering from depression and being treated with tablet flupentixol in a cumulative dose of 4380 mg over two years. Fundus examination of both eyes showed multiple, discrete, yellowish white refractile intraretinal deposits over the macula and peripapillary region, located in the inner retina as shown by OCT.

CONCLUSION: We propose regular retinal evaluation in patients with chronic flupentixol intake and larger studies to establish causal relationship between flupentixol and crystalline retinopathy.

DOI: 10.1007/s10792-017-0624-1
PMID: 28676993

99: Kumar R. What's inside. *Indian J Urol*. 2017 Jul-Sep;33(3):181-182. doi: 10.4103/iju.IJU_192_17. PubMed PMID: 28717264; PubMed Central PMCID: PMC5508425.

100: Kumar R. On generic prescriptions and live surgeries. *Indian J Urol*. 2017 Jul-Sep;33(3):179-180. doi: 10.4103/iju.IJU_145_17. PubMed PMID: 28717263; PubMed Central PMCID: PMC5508424.

101: Kumar S, Kaushal A, Shamim R. Delayed tracheal perforation, a rare but dreaded complication of thyroidectomy. *Saudi J Anaesth*. 2017 Jul-Sep;11(3):351-352. doi: 10.4103/sja.SJA_637_16. PubMed PMID: 28757841; PubMed Central PMCID: PMC5516503.

102: Kumar V. Insights into autofluorescence patterns in Stargardt macular dystrophy using ultra-wide-field imaging. *Graefes Arch Clin Exp Ophthalmol*. 2017 Oct;255(10):1917-1922. doi: 10.1007/s00417-017-3736-4. Epub 2017 Jul 8. PubMed PMID: 28689222.

PURPOSE: To characterize autofluorescence (AF) patterns occurring in Stargardt macular dystrophy (STGD1) using ultra-wide-field (UWF) imaging.

METHODS: This paper is a cross-sectional observational study of 22 eyes of 11 patients (mean age 23.44 years) with Stargardt disease-fundus flavimaculatus who presented with decrease of vision at a tertiary eye care center. UWF short-wave AF images were obtained from all the patients using an Optos TX200 instrument. The main outcome measures were to assess patterns of AF changes seen on UWF AF imaging.

RESULTS: All eyes showed a central area of hypoautofluorescence at the macula along with retinal flecks extending centrifugally as well as to the nasal side of the optic disc. Peripapillary sparing was seen in 100% of the eyes. Flecks were seen to be hypoautofluorescent in the center and hyperautofluorescent in the periphery in 77.8% eyes and were only hyperfluorescent in 27.2%. A background-increased fluorescence was visible in 100% of eyes, the outer boundary of which was marked by distribution of flecks in 81.9% eyes. A characteristic inferonasal vertical line was seen separating the nasal hypoautofluorescent area from the temporal hyperautofluorescent area in all the eyes.

CONCLUSIONS: UWF AF changes in STGD1 are not limited to the posterior pole and may extend more peripherally. UWF imaging is a useful tool for the assessment of patients with Stargardt macular dystrophy.

DOI: 10.1007/s00417-017-3736-4
PMID: 28689222

103: Kumar V, R K. Peripheral Choroidal and Macular Retinal Vascular Nonperfusion. *JAMA Ophthalmol*. 2017 Jul 13;135(7):e170677. doi: 10.1001/jamaophthalmol.2017.0677. Epub 2017 Jul 13. PubMed PMID: 28715560.

104: Kumar V, Jain R, Kumar A, Nischal N, Jorwal P, Soneja M, Arava S, Wig N. Chikungunya Fever Presenting as Life Threatening Thrombotic Thrombocytopenic Purpura. *J Assoc Physicians India*. 2017 Jul;65(7):96-100. PubMed PMID: 28792176.

It is well known for Chikungunya fever to present as myriad of skin rash along

with usual joint pain and fever, but probably this is the first case report of Chikungunya fever presenting as severe life threatening thrombotic microangiopathy, thrombotic thrombocytopenic purpura leading to multiple areas of skin necrosis, peripheral digital gangrene, haemolytic anemia, renal failure and severe thrombocytopenia with bleeding. This complication was most likely due to inhibitor autoantibody formation against ADAMTS13 triggered by chikungunya virus leading to thrombotic thrombocytopenic purpura. Patient was treated with plasmapheresis and other supportive care to which she responded. Her symptoms subsided, and she is symptom free and leading normal life in her follow up visits.

© Journal of the Association of Physicians of India 2011.

PMID: 28792176

105: Kumar V, Agarwal R, Chandra P. Retinal Macroaneurysm Associated with Congenital Anomalous Retinal Artery. *Optom Vis Sci*. 2017 Jul;94(7):781-785. doi: 10.1097/OPX.0000000000001095. PubMed PMID: 28609419.

PURPOSE: Retinal arteriolar macroaneurysms are a common cause of vision loss in elderly patients with hypertension and cardiovascular disease. Their occurrence in the young, however, is not well known. The purpose of this article is to describe an unusual cause of retinal arteriolar macroaneurysm in a healthy young man.

CASE REPORT: A 30-year-old man presented with preretinal hemorrhage and macular exudation due to ruptured retinal artery macroaneurysm. The patient was treated with intravitreal bevacizumab and laser photocoagulation to the macroaneurysm. The exudation and preretinal hemorrhage resolved over several months. Fluorescein angiogram at this stage revealed a congenital anomalous retinal artery.

CONCLUSIONS: Congenital anomalous retinal artery may be associated with retinal artery macroaneurysm even in the young age in the absence of any other predisposing factors. The presentation and treatment of such retinal artery macroaneurysm, however, may remain the same to those that occur in older patients.

DOI: 10.1097/OPX.0000000000001095

PMID: 28609419 [Indexed for MEDLINE]

106: Kumar V, Goel N, Bhaskaran UK, Garg I. Mizuo-Nakamura phenomenon in cone-rod dystrophy. *Clin Exp Optom*. 2017 Jul;100(4):388-391. doi: 10.1111/cxo.12491. Epub 2016 Nov 3. PubMed PMID: 27813202.

107: Kumar V, Bhati JK, Ravani R, Chandra P, Kumar A. Successful closure of full-thickness macular hole associated with circumscribed choroidal haemangioma. *Clin Exp Optom*. 2017 Jul;100(4):396-398. doi: 10.1111/cxo.12492. Epub 2016 Nov 3. PubMed PMID: 27813165.

108: Kumar VL, Guruprasad B, Fatmi SMA, Chaudhary P, Alencar NMN, Lima-Filho JVM, Ramos MV. In Vivo Efficacy of Latex from *Calotropis procera* in Ameliorating Fever-Biochemical Characteristics and Plausible Mechanism. *Appl Biochem Biotechnol*. 2017 Jul;182(3):1229-1239. doi: 10.1007/s12010-016-2395-y. Epub 2017 Jan 11. PubMed PMID: 28078650.

Calotropis procera latex fractions possessing anti-inflammatory property were characterized for their biochemical properties, compared for their efficacy in ameliorating fever in rats and their mechanism of action was elucidated. Aqueous fraction and methanol extract (AqDL and MeDL) were derived from the dried latex (DL) and proteins were separated from the fresh latex (LP). Polyacrylamide gel electrophoresis carried out under denaturing conditions showed the presence of proteins with some similarity in LP and AqDL and both of these fractions exhibited proteinase activity by gelatin zymography. A further analysis revealed that only the LP fraction possesses cysteine proteinase activity. Oral administration of both AqDL and MeDL produced a dose-dependent reduction in body temperature in rats where fever was induced by yeast and their effect was comparable to that of standard drug paracetamol while intravenous administration of LP was not so effective. Both AqDL and MeDL produced a significant reduction in the levels of TNF- α , PGE₂, and immunoreactivity of COX-2 in the hypothalamus as compared to yeast control group. This study shows that both AqDL and MeDL, the orally effective anti-inflammatory fractions of latex, have therapeutic potential in treating various febrile conditions.

DOI: 10.1007/s12010-016-2395-y
PMID: 28078650 [Indexed for MEDLINE]

109: Kumari N, Chaturvedi SK, Khan R, Sharma A, Khan RH, Yadav S. Characterization of CNL like protein fragment (CNL-LPF) from mature *Lageneria siceraria* seeds. *Int J Biol Macromol*. 2017 Nov;104(Pt A):1194-1203. doi: 10.1016/j.ijbiomac.2017.06.086. Epub 2017 Jul 1. PubMed PMID: 28676339.

Coiled coil domain-nucleotide binding site-leucine rich repeat (CC-NBS-LRR; CNL) proteins are highly conserved family of plant disease resistance proteins, remarkably comprise of coiled-coil domain, which plays significant role in plant innate immunity. The present study reports that moderately elicited oligomerization of plant CNL like protein fragment (CNL-LPF) in presence of ATP/Mg using various biophysical methods Circular dichroism (CD) results depicted a substantial increase in β -sheet structure content of CNL-LPF. ATP/Mg induced conformational change in protein was observed by increase in blue shift with extrinsic fluorescence measurement, which indicates the exposure of hydrophobic regions of CNL-LPF and leads to self-association i.e. oligomerization. Likewise, cluster of protein oligomer and alteration in protein surface morphology were observed in presence of ATP/Mg by Transmission electron microscopy (TEM) and Atomic force microscopy (AFM), respectively. Also, augmented antiproliferation of HT1376 cells (urinary bladder cancer cell lines) was observed by CNL-LPF in presence of ATP/Mg. In conclusion, the current study illustrates that extent of CNL-LPF oligomerization was enhanced in presence of ATP/Mg (as compared to its absence). Utilization of enhanced oligomerization property of CNL-LPF as an anti-proliferative agent needs more assessment.

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DOI: 10.1016/j.ijbiomac.2017.06.086
PMID: 28676339

110: Kuppili PP, Gupta R, Pattanayak RD, Khandelwal SK. Delusional denial of pregnancy: Unique presentation of Cotard's syndrome in a patient with schizophrenia. *Asian J Psychiatr*. 2017 Dec;30:26-27. doi: 10.1016/j.ajp.2017.07.005. Epub 2017 Jul 8. PubMed PMID: 28710951.

111: Kuppili PP, Manohar H, Pattanayak RD, Sagar R, Bharadwaj B, Kandasamy P.

ADHD research in India: A narrative review. *Asian J Psychiatr.* 2017 Dec;30:11-25. doi: 10.1016/j.ajp.2017.07.022. Epub 2017 Jul 5. Review. PubMed PMID: 28709018.

INTRODUCTION: Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder with no clear etiopathogenesis. Owing to unique socio cultural milieu of India, it is worthwhile reviewing research on ADHD from India and comparing findings with global research. Thereby, we attempted to provide a comprehensive overview of research on ADHD from India.

METHODS: A boolean search of articles published in English from September 1966 to January 2017 on electronic search engines Google Scholar, PubMed, IndMED, MedIND, using the search terms "ADHD", "Attention Deficit and Hyperactivity Disorder", "Hyperactivity", "Child psychiatry", "Hyperkinetic disorder", "Attention Deficit Disorder", "India" was carried out and peer - reviewed studies conducted among human subjects in India were included for review. Case reports, animal studies, previous reviews were excluded from the current review.

RESULTS: Results of 73 studies found eligible for the review were organized into broad themes such as epidemiology, etiology, course and follow up, clinical profile and comorbidity, assessment /biomarkers, intervention/treatment parameters, pathways to care and knowledge and attitude towards ADHD.

DISCUSSION: There was a gap noted in research from India in the domains of biomarkers, course and follow up and non-pharmacological intervention. The prevalence of ADHD as well as comorbidity of Bipolar Disorder was comparatively lower compared to western studies. The studies found unique to India include comparing the effect of allopathic intervention with Ayurvedic intervention, yoga as a non pharmacological intervention. There is a need for studies from India on biomarkers, studies with prospective research design, larger sample size and with matched controls.

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DOI: 10.1016/j.ajp.2017.07.022
PMID: 28709018

112: Learoyd AE, Woodhouse L, Shaw L, Sprigg N, Bereczki D, Berge E, Caso V, Christensen H, Collins R, Czlonkowska A, El Etribi A, Farr TD, Gommans J, Laska AC, Ntaios G, Ozturk S, Pocock SJ, Prasad K, Wardlaw JM, Fone KC, Bath PM, Trueman RC; ENOS Trial investigators. Infections Up to 76 Days After Stroke Increase Disability and Death. *Transl Stroke Res.* 2017 Dec;8(6):541-548. doi: 10.1007/s12975-017-0553-3. Epub 2017 Jul 27. PubMed PMID: 28752410.

Early infection after stroke is associated with a poor outcome. We aimed to determine whether delayed infections (up to 76 days post-stroke) are associated with poor outcome at 90 days. Data came from the international Efficacy of Nitric Oxide Stroke (ENOS, ISRCTN99414122) trial. Post hoc data on infections were obtained from serious adverse events reports between 1 and 76 days following stroke in this large cohort of patients. Regression models accounting for baseline covariates were used to analyse fatalities and functional outcomes (modified Rankin Scale (mRS), Barthel Index, Euro-Qol-5D) at 90 days, in patients with infection compared to those without infection. Of 4011 patients, 242 (6.0%) developed one or more serious infections. Infections were associated with an increased risk of death ($p < 0.001$) and an increased likelihood of dependency (measured by mRS) compared to those of all other patients ($p < 0.001$). This remained when only surviving patients were analysed, indicating that the worsening of functional outcome is not due to mortality ($p < 0.001$). In addition, the timing of the infection after stroke did not alter its detrimental association with fatality ($p = 0.14$) or functional outcome ($p = 0.47$). In conclusion, severe post-stroke infections, whether occurring early or late after

stroke, are associated with an increased risk of death and poorer functional outcome, independent of differences in baseline characteristics or treatment. Not only are strategies needed for reducing the risk of infection immediately after stroke, but also during the first 3 months following a stroke. This study is registered: ISRCTN registry, number ISRCTN99414122, ClinicalTrials.gov Identifier, NCT00989716.

DOI: 10.1007/s12975-017-0553-3
PMID: 28752410

113: Lohiya A, Kant S, Kapil A, Gupta SK, Misra P, Rai SK. Population-based estimate of urinary stones from Ballabgarh, northern India. *Natl Med J India*. 2017 Jul-Aug;30(4):198-200. doi: 10.4103/0970-258X.218671. PubMed PMID: 29162751.

BACKGROUND: Stones in the urinary tract are a common condition but there is paucity of data on their population-based estimates in India. We describe our findings of the burden of urinary stones during a cross-sectional study with another primary goal.

METHODS: We conducted the study at Ballabgarh Health and Demographic Surveillance System, Haryana, among residents aged 18 years or above. We used simple random sampling to enrol participants. Self-reported history of urinary stones was elicited through an interview schedule. Results of the descriptive analysis were described as proportions with 95% confidence intervals (CI) or as mean wherever applicable. Bivariate analysis was done using t-test and chi-square test as applicable.

RESULTS: The response rate for our study was 86.6%; lifetime prevalence (95% CI) of urinary stones was 7.9% (5.7, 10.8). In a majority of participants, urinary stones were diagnosed at an age of 20-40 years (55.9%), mostly by an ultrasonography examination (94.1%).

CONCLUSIONS: A high burden of urinary stones is indicated in the working-age population in northern India at the community level. Untreated urinary stones can lead to an acute emergency (colic) or may have long-term adverse consequences, e.g. hydronephrosis, which have implications for the healthcare delivery system.

DOI: 10.4103/0970-258X.218671
PMID: 29162751

114: Mahajan C, Rath GP, Bithal PK, Mahapatra AK. Perioperative Management of Children With Giant Encephalocele: A Clinical Report of 29 Cases. *J Neurosurg Anesthesiol*. 2017 Jul;29(3):322-329. doi: 10.1097/ANA.0000000000000282. PubMed PMID: 26841351.

BACKGROUND: Giant encephalocele, a rare entity, makes anesthesiologists wary of challenging anesthetic course. Apart from inherent challenges of pediatric anesthesia, the anesthesiologist has to deal with unusual positioning, difficult tracheal intubation, and associated anomalies during the perioperative course.

MATERIALS AND METHODS: Medical records of 29 children with giant encephalocele, who underwent excision and repair, during a period of 13 years, were retrospectively analyzed. Data pertaining to anesthetic management, perioperative complications, and outcome at discharge were reviewed.

RESULTS: The average age at admission was 164 days. Hydrocephalus and delayed milestones were present in 19 (65.5%) and 7 (24.1%) children, respectively. Difficulty in tracheal intubation was encountered, in 15 (51.7%) children. Tracheal intubation was attempted with direct laryngoscopy, most often, in lateral position (24 [82.8%]). Intraoperative hemodynamic and respiratory complications were observed in 9 (31.0%) and 5 (17.2%) children, respectively. Intraoperative hypothermia was observed in 4 (13.8%) children. The average stay

in the intensive care unit was 2.7 days and average hospital stay was 11.5 days. The condition at discharge remained same as the preoperative period in 24 children (82.7%), deteriorated in 2 (6.9%), and 3 children (10.3%) died. CONCLUSIONS: Management of children with giant encephalocele requires the updated knowledge on possible difficulties encountered during the perioperative period. They need specialized anesthetic care for dealing with difficult tracheal intubation, associated congenital anomalies, unusual positioning, electrolyte abnormalities, hypothermia, and cardiorespiratory disturbances. For securing the airway, we suggest the practice of direct laryngoscopy in lateral position after inhalational induction. Muscle relaxant should be administered only after visualization of the glottis.

DOI: 10.1097/ANA.0000000000000282

PMID: 26841351

115: Mahajan SK, Mahajan SK. Neuropsychiatric Manifestations of Scrub Typhus. *J Neurosci Rural Pract.* 2017 Jul-Sep;8(3):421-426. doi: 10.4103/jnrp.jnrp_44_17. Review. PubMed PMID: 28694624; PubMed Central PMCID: PMC5488565.

Scrub typhus is caused by *Orientia tsutsugamushi* characterized by focal or disseminated vasculitis and perivasculitis which may involve the lungs, heart, liver, spleen and central nervous system. It was thought to have been eradicated from India. Recently it is being reported from many areas of India. The clinical picture and severity of the symptoms varies widely. The neurological manifestations of scrub typhus are not uncommon but are diverse. Meningoencephalitis is classical manifestation of scrub typhus but cerebellitis, cranial nerve palsies, plexopathy, transverse myelitis, neuroleptic malignant syndrome and Guillan-Barré syndrome are other manifestations reported in literature. The availability of literature on the neurological manifestations of scrub typhus is limited to case reports mainly. This article reviews various neurological manifestations of scrub typhus reported in literature.

DOI: 10.4103/jnrp.jnrp_44_17

PMCID: PMC5488565

PMID: 28694624

Conflict of interest statement: There are no conflicts of interest.

116: Makhdoomi MA, Khan L, Kumar S, Aggarwal H, Singh R, Lodha R, Singla M, Das BK, Kabra SK, Luthra K. Evolution of cross-neutralizing antibodies and mapping epitope specificity in plasma of chronic HIV-1-infected antiretroviral therapy-naïve children from India. *J Gen Virol.* 2017 Jul;98(7):1879-1891. doi: 10.1099/jgv.0.000824. Epub 2017 Jul 12. PubMed PMID: 28696188.

Delineating the factors leading to the development of broadly neutralizing antibodies (bnAbs) during natural HIV-1 infection and dissecting their epitope specificities generates useful information for vaccine design. This is the first longitudinal study to assess the plasma-neutralizing antibody response and neutralizing determinants in HIV-1-infected children from India. We enrolled 26 and followed up 20 antiretroviral therapy (ART)-naïve, asymptomatic, chronic HIV-1-infected children. Five (19.2%) baseline and 10 (50%) follow-up plasma samples neutralized $\geq 50\%$ of subtypes A, B and C tier 2 viruses at an ID50 titre ≥ 150 . A modest improvement in neutralization breadth and potency was observed with time. At baseline, subtype C-specific neutralization predominated ($P=0.026$); interestingly, follow-up samples exhibited cross-neutralizing activity. Epitope mapping revealed V3C reactive antibodies with significantly increased Max50 binding titres in follow-up samples from five infected children; patient #4's

plasma antibodies exhibited V3-directed neutralization. A salient observation was the presence of CD4 binding site (CD4bs)-specific NAbs in patient #18 that improved with time (1.76-fold). The RSC3 wild-type (RSC3WT) protein-depleted plasma eluate of patient #18 demonstrated a more than 50% ID50 decrease in neutralization capacity against five HIV-1 pseudoviruses. Further, the presence of CD4bs-neutralizing determinants in patient #18's plasma was confirmed by the neutralizing activity demonstrated by the CD4bs-directed IgG fraction purified from this plasma, and competition with sCD4 against JRFLgp120, identifying this paediatric donor as a potential candidate for the isolation of CD4bs-directed bnAbs. Overall, we observed a relative increase in plasma-neutralizing activity with time in HIV-1-infected children, which suggests that the bnAbs evolve.

DOI: 10.1099/jgv.0.000824

PMID: 28696188 [Indexed for MEDLINE]

117: Malgulwar PB, Nambirajan A, Pathak P, Faruq M, Suri V, Sarkar C, Jagdevan A, Sharma BS, Sharma MC. Study of β -catenin and BRAF alterations in adamantinomatous and papillary craniopharyngiomas: mutation analysis with immunohistochemical correlation in 54 cases. *J Neurooncol*. 2017 Jul;133(3):487-495. doi: 10.1007/s11060-017-2465-1. Epub 2017 May 12. PubMed PMID: 28500561.

Craniopharyngiomas (CP) are rare benign epithelial tumors, with two histological variants, namely the adamantinomatous variant (ACP) and the rarer papillary variant (PCP). They are locally infiltrative and surgically challenging tumors with severe long term morbidity. CTNNB1 mutations with β -catenin immunopositivity and BRAFV600E mutations with anti-VE immunopositivity have been recently described in ACPs and PCPs respectively. We aimed to study BRAF and CTNNB1 gene mutations in CPs operated at our institute, and correlate it with clinicopathological parameters including histopathology and immunohistochemistry (IHC) for proteins VE-1 and β -catenin. A total of 54 CPs diagnosed over 3-year duration were included. IHC for β -catenin and VE-1 proteins, and Sanger sequencing for CTNNB1 (exon 3) and BRAF (exon 15) genes were performed. CTNNB1 mutations were identified in 63% (27/43) of ACPs while nuclear immunopositivity for β -catenin was observed in 79% (34/43) of them. Seven ACPs showed β -catenin immunopositivity in the absence of mutations. BRAFV600E (p.Val600Glu) mutations were observed in 57% of PCPs (4/7), while cytoplasmic immunopositivity for anti-VE1 antibody was observed only in 43% of PCPs (3/7), all of which also harboured BRAFV600E mutations. The mutations and IHC staining patterns of ACPs and PCPs were non-overlapping. Four cases with uncertain histological pattern could be subcategorized into specific variants only following mutation analysis/IHC. The identification of hallmark molecular signatures in the two CP variants holds promise for alternate improved treatment modalities, emphasizing the need for sub-categorization in routine histopathology reporting. IHC for β -catenin and targeted sequencing for BRAFV600E serve as useful adjuncts.

DOI: 10.1007/s11060-017-2465-1

PMID: 28500561

118: Malik MA, Gupta V, Shukla S, Kaur J. Glutathione S-transferase (GSTM1, GSTT1) polymorphisms and JOAG susceptibility: A case control study and meta-analysis in glaucoma. *Gene*. 2017 Sep 10;628:246-252. doi: 10.1016/j.gene.2017.07.028. Epub 2017 Jul 12. PubMed PMID: 28710033.

PURPOSE: Glutathione S transferase (GST) polymorphisms have been considered risk factors for the development of glaucoma. The aim of the present study was to investigate the association of glutathione S-transferase GSTT1 and GSTM1

genotypes with juvenile open-angle glaucoma (JOAG) in Indian patients.

METHODS: A case-control study was performed to investigate the associations of GSTM1 and GSTT1 in juvenile open-angle glaucoma. The genotype of GSTM1 and GSTT1 were determined in 73 juvenile open-angle glaucoma patients, and 70 controls matched by age and sex by polymerase chain reaction method. We also performed a meta-analysis of sixteen published studies on GSTM1 and GSTT1 and evaluated the association between the GSTM1 and GSTT1 polymorphisms and glaucoma (JOAG & POAG). Published literature from PubMed and other databases were retrieved. All studies evaluating the association between GSTM1 and GSTT1 polymorphisms and glaucoma (JOAG & POAG) risk were included. Pooled odds ratio (OR) and 95% confidence interval (CI) were calculated using random- or fixed-effects model.

RESULTS: In the present study, we observed there is no association of GSTM1 (OR=0.680; 95% CI=0.323-1.433; p=0.311) or GSTT1 (OR=0.698; 95% CI=0.307-1.586; p=0.391) with JOAG. In the present meta-analysis, significantly increased glaucoma (JOAG & POAG) risk was found among subjects carrying GSTM1 null genotype (OR=1.177; 95% CI=1.028-1.348; p=0.018) but not among subjects carrying GSTT1 deletion genotype (OR=1.186; 95% CI=0.992-1.417; p=0.061).

CONCLUSIONS: The present case-control study found that GSTM1 and GSTT1 polymorphism are not associated with JOAG risk in North Indian population. The present meta-analysis suggested that there might be a significant association of GSTM1 null genotype with glaucoma (JOAG & POAG) risk. To the best of our knowledge, this is the first study in the world to investigate role of GSTM1 and GSTT1 polymorphisms with JOAG susceptibility. Given the limited sample size, the associations between GST polymorphism and glaucoma risk needs further investigation.

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DOI: 10.1016/j.gene.2017.07.028

PMID: 28710033 [Indexed for MEDLINE]

119: Mandal A, Jat KR, Singh A, Mridha AR, Kabra SK. Autoimmune haemolytic anaemia and haemophagocytic lymphohistiocytosis in an adolescent boy with tuberculosis: an unusual association. *Trop Doct.* 2017 Jul;47(3):249-253. doi: 10.1177/0049475516643438. PubMed PMID: 28689492.

120: Manning A, Highland HM, Gasser J, Sim X, Tukiainen T, Fontanillas P, Grarup N, Rivas MA, Mahajan A, Locke AE, Cingolani P, Pers TH, Viñuela A, Brown AA, Wu Y, Flannick J, Fuchsberger C, Gamazon ER, Gaulton KJ, Im HK, Teslovich TM, Blackwell TW, Bork-Jensen J, Burtt NP, Chen Y, Green T, Hartl C, Kang HM, Kumar A, Ladenvall C, Ma C, Moutsianas L, Pearson RD, Perry JRB, Rayner NW, Robertson NR, Scott LJ, van de Bunt M, Eriksson JG, Jula A, Koskinen S, Lehtimäki T, Palotie A, Raitakari OT, Jacobs SBR, Wessel J, Chu AY, Scott RA, Goodarzi MO, Blancher C, Buck G, Buck D, Chines PS, Gabriel S, Gjesing AP, Groves CJ, Hollensted M, Huyghe JR, Jackson AU, Jun G, Justesen JM, Mangino M, Murphy J, Neville M, Onofrio R, Small KS, Stringham HM, Trakalo J, Banks E, Carey J, Carneiro MO, DePristo M, Farjoun Y, Fennell T, Goldstein JI, Grant G, Hrabá de Angelis M, Maguire J, Neale BM, Poplin R, Purcell S, Schwarzmayr T, Shakir K, Smith JD, Strom TM, Wieland T, Lindstrom J, Brandslund I, Christensen C, Surdulescu GL, Lakka TA, Doney ASF, Nilsson P, Wareham NJ, Langenberg C, Varga TV, Franks PW, Rolandsson O, Rosengren AH, Farook VS, Thameem F, Puppala S, Kumar S, Lehman DM, Jenkinson CP, Curran JE, Hale DE, Fowler SP, Arya R, DeFronzo RA, Abboud HE, Syvänen AC, Hicks PJ, Palmer ND, Ng MCY, Bowden DW, Freedman BI, Esko T, Mägi R, Milani L, Mihailov E, Metspalu A, Narisu N, Kinnunen L, Bonnycastle LL, Swift A, Pasko D, Wood AR, Fadista J, Pollin TI, Barzilai N, Atzmon G, Glaser B, Thorand B, Strauch K, Peters A, Roden M, Mäller-Nurasyid M, Liang L, Kriebel

J, Illig T, Grallert H, Gieger C, Meisinger C, Lannfelt L, Musani SK, Griswold M, Taylor HA Jr, Wilson G Sr, Correa A, Oksa H, Scott WR, Afzal U, Tan ST, Loh M, Chambers JC, Sehmi J, Kooner JS, Lehne B, Cho YS, Lee JY, Han BG, KÃ¼rÃ¼mÃ¼ki A, Qi Q, Qi L, Huang J, Hu FB, Melander O, Orho-Melander M, Below JE, Aguilar D, Wong TY, Liu J, Khor CC, Chia KS, Lim WY, Cheng CY, Chan E, Tai ES, Aung T, Linneberg A, Isomaa B, Meitinger T, Tuomi T, Hakaste L, Kravic J, JÃ¤rgensen ME, Lauritzen T, Deloukas P, Stirrups KE, Owen KR, Farmer AJ, Frayling TM, O'Rahilly SP, Walker M, Levy JC, Hodgkiss D, Hattersley AT, Kuulasmaa T, StanÃ ;kovÃ ; A, Barroso I, Bharadwaj D, Chan J, Chandak GR, Daly MJ, Donnelly PJ, Ebrahim SB, Elliott P, Fingerlin T, Froguel P, Hu C, Jia W, Ma RCW, McVean G, Park T, Prabhakaran D, Sandhu M, Scott J, Sladek R, Tandon N, Teo YY, Zeggini E, Watanabe RM, Koistinen HA, Kesaniemi YA, Uusitupa M, Spector TD, Salomaa V, Rauramaa R, Palmer CNA, Prokopenko I, Morris AD, Bergman RN, Collins FS, Lind L, Ingelsson E, Tuomilehto J, Karpe F, Groop L, JÃ¤rgensen T, Hansen T, Pedersen O, Kuusisto J, Abecasis G, Bell GI, Blangero J, Cox NJ, Duggirala R, Seielstad M, Wilson JG, Dupuis J, Ripatti S, Hanis CL, Florez JC, Mohlke KL, Meigs JB, Laakso M, Morris AP, Boehnke M, Altshuler D, McCarthy MI, Gloyn AL, Lindgren CM. A Low-Frequency Inactivating AKT2 Variant Enriched in the Finnish Population Is Associated With Fasting Insulin Levels and Type 2 Diabetes Risk. *Diabetes*. 2017 Jul;66(7):2019-2032. doi: 10.2337/db16-1329. Epub 2017 Mar 24. PubMed PMID: 28341696; PubMed Central PMCID: PMC5482074.

To identify novel coding association signals and facilitate characterization of mechanisms influencing glycemic traits and type 2 diabetes risk, we analyzed 109,215 variants derived from exome array genotyping together with an additional 390,225 variants from exome sequence in up to 39,339 normoglycemic individuals from five ancestry groups. We identified a novel association between the coding variant (p.Pro50Thr) in AKT2 and fasting plasma insulin (FI), a gene in which rare fully penetrant mutations are causal for monogenic glycemic disorders. The low-frequency allele is associated with a 12% increase in FI levels. This variant is present at 1.1% frequency in Finns but virtually absent in individuals from other ancestries. Carriers of the FI-increasing allele had increased 2-h insulin values, decreased insulin sensitivity, and increased risk of type 2 diabetes (odds ratio 1.05). In cellular studies, the AKT2-Thr50 protein exhibited a partial loss of function. We extend the allelic spectrum for coding variants in AKT2 associated with disorders of glucose homeostasis and demonstrate bidirectional effects of variants within the pleckstrin homology domain of AKT2.

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PMID: 28341696 [Indexed for MEDLINE]

121: Maqbool M, Sengar KS, Vikas, Kumar M, Uparikar PD. Efficacy of Danger Ideation Reduction Therapy in Obsessive-Compulsive Disorder Washer with Poor Insight: A Case Study and Literature Review. *Indian J Psychol Med*. 2017 Jul-Aug;39(4):523-526. doi: 10.4103/0253-7176.211754. PubMed PMID: 28852254; PubMed Central PMCID: PMC5560008.

Obsessive-compulsive disorder (OCD) is characterized by obsessions and compulsions. Treatment usually consists of serotonergic medications along with exposure therapies. Danger ideation reduction therapy (DIRT) is an alternative therapy predominantly for washing compulsions and focuses on reduction of danger ideations. DIRT was tried on Ms. S. with a history of OCD for 15 years and improvement was noticed on Yale-Brown Obsessive Compulsive Scale, Padua

Inventory, Hamilton Anxiety Rating Scale and Hamilton Depression Rating Scale after 15 sessions of DIRT though she was not fully symptom-free. Thus, DIRT was found to improve OCD symptoms and improved her insight into illness.

DOI: 10.4103/0253-7176.211754

PMCID: PMC5560008

PMID: 28852254

Conflict of interest statement: There are no conflicts of interest.¹⁴

122: Mathan K, Sarkar S, Kattimani S, Vivek AK, Muthukrishnan V, Venkatlakshmi P. How to Improve Adherence to Medication and Follow-up in Chronic Mental Illnesses: Stakeholder Views. *J Neurosci Rural Pract.* 2017 Jul-Sep;8(3):496-498. doi: 10.4103/jnrp.jnrp_289_16. PubMed PMID: 28694651; PubMed Central PMCID: PMC5488592.

123: Menon V, Rajan TM, Kuppili PP, Sarkar S. Cognitive Behavior Therapy for Medically Unexplained Symptoms: A Systematic Review and Meta-analysis of Published Controlled Trials. *Indian J Psychol Med.* 2017 Jul-Aug;39(4):399-406. doi: 10.4103/IJPSYM.IJPSYM_17_17. Review. PubMed PMID: 28852229; PubMed Central PMCID: PMC5559983.

Medically unexplained symptoms (MUS) commonly present across the board in medical specialties and are often challenging to treat. Our objective was to assess the efficacy for cognitive-behavior therapy (CBT) in MUS. Electronic search of databases was carried out for published controlled trials in English language peer-reviewed journals from inception till August 2016. Effect sizes for the trials were computed using standardized mean difference, and I² test was used to assess sample heterogeneity. Pooled mean effect sizes were derived using a random-effects model. Critical appraisal of studies was done using the Cochrane risk of bias assessment tool. A total of 11 trials involving 1235 subjects were included in the study. Ten trials used standard CBT techniques while one studied the efficacy of mindfulness-based CBT technique. The control arms were treatment as usual in five trials, augmented care in four and waitlisted controls in two trials. The pooled mean effect size for CBT was 0.388 (range 0.055-0.806, 95% confidence intervals 0.316-0.461). The I² value was 0 using a random effects model indicating low heterogeneity among studies. Risk of bias was noted in many included studies. Egger plot intercept indicated potential publication bias. CBT was superior to the waiting list, treatment as usual or enhanced usual care with moderate effect sizes in the treatment of MUS. These findings are impacted by the limited number of studies in this area and questionable methodological rigor of included studies.

DOI: 10.4103/IJPSYM.IJPSYM_17_17

PMCID: PMC5559983

PMID: 28852229

Conflict of interest statement: There are no conflicts of interest.

124: Mian A, Sebastian S, Arif N, Soneja M, Dhawan B. A case of sterile pyuria caused by *Chlamydia trachomatis* and *Mycoplasma hominis*: A diagnostic challenge. *Indian J Med Microbiol.* 2017 Jul-Sep;35(3):429-431. doi: 10.4103/ijmm.IJMM_17_125. PubMed PMID: 29063893.

Sterile pyuria is a highly prevalent condition with a wide aetiological spectrum, which often challenges the diagnostician. We describe the case of a middle-aged

female admitted to the medical Intensive Care Unit for acute gastroenteritis, whose urinalysis revealed persistent sterile pyuria. Polymerase chain reaction assay in urine was positive for *Chlamydia trachomatis* and *Mycoplasma hominis*. She responded to antimicrobial therapy. We hereby reflect on the approach to a case of sterile pyuria and review the available literature on this entity.

DOI: 10.4103/ijmm.IJMM_17_125
PMID: 29063893

125: Mirgh SP, Shah VD, Sorabjee JS. A Microbial Old Friend with a New Face: A Rare Case of Pyrexia of Unknown Origin and Leukemoid Reaction. *J Glob Infect Dis.* 2017 Jul-Sep;9(3):117-119. doi: 10.4103/jgid.jgid_166_16. PubMed PMID: 28878524; PubMed Central PMCID: PMC5572196.

We present a case of a young male, who presented to us with high-grade fever for more than four weeks, refractory seizures, multiple subcutaneous palpable lumps, and evidence of leukocytosis with predominant left shift on the peripheral smear. The classic "starry-sky" appearance on imaging, generalized muscular uptake on positron emission tomography-computerized tomography scan, and positive serology led to a diagnosis of disseminated cysticercosis. He responded to oral steroids. To the best of our knowledge, disseminated cysticercosis presenting as pyrexia of unknown origin and with a leukemoid reaction has never been reported in literature.

DOI: 10.4103/jgid.jgid_166_16
PMCID: PMC5572196
PMID: 28878524

Conflict of interest statement: There are no conflicts of interest.

126: Misra P, Srivastava R, Misra A, Kant S, Kardam P, Vikram NK. Vitamin D status of adult females residing in Ballabgarh health and demographic surveillance system: A community-based study. *Indian J Public Health.* 2017 Jul-Sep;61(3):194-198. doi: 10.4103/ijph.IJPH_176_16. PubMed PMID: 28928303.

BACKGROUND: Vitamin D deficiency (VDD) is widespread, yet it is the most underdiagnosed and undertreated nutritional deficiency in the world. The prevalence of VDD is estimated to affect over 1 billion people worldwide. **OBJECTIVES:** The present study was conducted to estimate the prevalence of VDD among adult females aged 20-60 years residing in a rural community of North India, and to find its association with various sociobehavioral risk factors. **METHODS:** The present study is an analytical cross-sectional study conducted among females aged 20-60 years in rural Ballabgarh. Four hundred women were randomly selected from one of the villages of the Health and Demographic Surveillance System. Semi-structured, pretested interview schedule was administered to the study participants. Fasting venous blood sample was collected for the measurement of plasma sugar level and Vitamin D (25-hydroxyvitamin D). **RESULTS:** The prevalence of VDD was 90.8% (95% confidence interval [CI] - 87.5-93.3), while that of Vitamin D insufficiency was 8.9% (95% CI - 6.4-12.2). On logistic regression analysis, 24 h calorie intake, protein intake, and prediabetes status of the participants were significantly associated with VDD. **CONCLUSION:** Very high prevalence of VDD was observed among the females (20-60 years) residing in rural Ballabgarh.

DOI: 10.4103/ijph.IJPH_176_16
PMID: 28928303

127: Mitra B, Mathew J, Gupta A, Cameron P, O'Reilly G, Soni KD, Kaushik G, Howard T, Fahey M, Stephenson M, Kumar V, Vyas S, Dharap S, Patel P, Thakor A, Sharma N, Walker T, Misra MC, Gruen R, Fitzgerald M; Australia-India Trauma System Collaboration. Protocol for a prospective observational study to improve prehospital notification of injured patients presenting to trauma centres in India. *BMJ Open*. 2017 Jul 17;7(7):e014073. doi: 10.1136/bmjopen-2016-014073. PubMed PMID: 28716784; PubMed Central PMCID: PMC5541604.

INTRODUCTION: Prehospital notification of injured patients enables prompt and timely care in hospital through adequate preparation of trauma teams, space, equipment and consumables necessary for resuscitation, and may improve outcomes. In India, anecdotal reports suggest that prehospital notification, in those few places where it occurs, is unstructured and not linked to a well-defined hospital response. The aim of this manuscript is to describe, in detail, a study protocol for the evaluation of a formalised approach to prehospital notification.

METHODS AND ANALYSIS: This is a longitudinal prospective cohort study of injured patients being transported by ambulance to major trauma centres in India. In the preintervention phase, prospective data on patients will be collected on prehospital assessment, notification, inhospital assessment, management and outcomes and recorded in a new tailored multihospital trauma registry. All injured patients arriving by ambulance and allocated to a red or yellow priority category will be eligible for inclusion. The intervention will be a prehospital notification application to be used by ambulance clinicians to notify emergency departments of the impending arrival of a patient. The proportion of eligible patients arriving to hospital after notification will be the primary outcome measure. Secondary outcomes evaluated will be availability of a trauma cubicle, presence of a trauma team on patient arrival, time to first chest X-ray and inhospital mortality.

PROGRESS: Ethical approval has been obtained from the All India Institute of Medical Sciences, New Delhi and site-specific approval granted by relevant trauma services. The trial has also been registered with the Monash University Human Research and Ethics Committee; Project number: CF16/1814 - 2016000929. Results will be fed back to prehospital and hospital clinicians via a series of reports and presentations. These will be used to facilitate discussions about service redesign and implementation. It is expected that evidence for improved outcomes will enable widespread adoption of this intervention among centres in all settings with less established tools for prehospital assessment and notification. **TRIAL REGISTRATION NUMBER:** NCT02877342; Pre-results.

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DOI: 10.1136/bmjopen-2016-014073
PMCID: PMC5541604
PMID: 28716784

Conflict of interest statement: Competing interests: None declared.

128: Mittal S, Mohan A, Madan K. Endobronchial ultrasound elastography for the differentiation of benign and malignant lymph nodes. *Respirology*. 2017 Jul;22(5):1037-1038. doi: 10.1111/resp.13062. Epub 2017 Apr 26. PubMed PMID: 28445925.

129: Modak T, Kumar S, Pal A, Gupta R, Pattanayak RD, Khandelwal SK. Chlorpromazine as Prophylaxis for Bipolar Disorder with Treatment- and

Electroconvulsive Therapy-Refractory Mania: Old Horse, New Trick. *Indian J Psychol Med.* 2017 Jul-Aug;39(4):539-541. doi: 10.4103/0253-7176.211759. PubMed PMID: 28852259; PubMed Central PMCID: PMC5560013.

A 22-year-old male diagnosed with bipolar affective disorder presented to us with a 3rd episode mania resistant to both olanzapine and haloperidol as well as electroconvulsive therapy. He, however, responded to chlorpromazine (CPZ) which was also effective as a mood stabilizer. The patient had a relapse of his illness when CPZ was stopped and responded again when it was started. The case demonstrates that CPZ may have a role in as both an anti-manic agent and for the maintenance for bipolar disorders. The possible underlying mechanism for this role is also discussed.

DOI: 10.4103/0253-7176.211759
PMCID: PMC5560013
PMID: 28852259

Conflict of interest statement: There are no conflicts of interest.

130: Mohan A, Poulouse R, Kulshreshtha I, Chautani AM, Madan K, Hadda V, Guleria R. High prevalence of malnutrition and deranged relationship between energy demands and food intake in advanced non-small cell lung cancer. *Eur J Cancer Care (Engl).* 2017 Jul;26(4). doi: 10.1111/ecc.12503. Epub 2016 Apr 21. PubMed PMID: 27099023.

The relation between dietary intake and metabolic profile in non-small cell lung cancer (NSCLC) was evaluated. Patients with NSCLC were recruited and their caloric requirement and resting energy expenditure (REE) were calculated using the Harris-Benedict equation and Katch-McArdle formula respectively. Hypermetabolic state was defined as REE more than 10% above the basal metabolic rate (BMR). Body composition parameters were calculated by bioelectric impedance method. The 24-h dietary intake method and Malnutrition Universal Screening Tool assessed nutritional intake. One hundred and forty-eight subjects were included (87% males). Of these, 46.6% subjects were hypermetabolic and 31% cachexic, with lower calorie and protein intakes than recommended, although per cent of total energy derived from protein, fat and carbohydrates were similar. Hypermetabolic patients had lower BMI, though the per cent deficit in energy and protein consumption was similar. Cachexia was associated with lower BMR but not with deficit in energy or protein consumption. No correlation was seen between dietary intake and body composition parameters. The calorie and protein intake of NSCLC patients is lower than recommended. The discordance between elevated REE and dietary intake implies that the relationship between increased energy demands and food intake may be altered.

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PMID: 27099023

131: Mohta S, Ray A, Sharma SK, Vyas S. Longitudinally extensive transverse myelitis (LETM) in a case of Japanese encephalitis with an unexpected complication. *J Vector Borne Dis.* 2017 Jul-Sep;54(3):291-293. PubMed PMID: 29097647.

132: Narendra PL, Hegde HV, Khan MA, Talikoti DG, Nallamilli S. Referral Systems

Development and Survey of Perioperative and Critical Care Referral to Anesthetists. *Anesth Essays Res.* 2017 Jul-Sep;11(3):702-712. doi: 10.4103/0259-1162.207072. PubMed PMID: 28928575; PubMed Central PMCID: PMC5594794.

INTRODUCTION: Anesthetists come in contact with more than two-third of hospital patients. Timely referral to anesthetists is vital in perioperative and remote site settings. Delayed referrals, improper referrals, and referrals at inappropriate levels can result in inadequate preparation, perioperative complications, and poor outcome.

METHODS: The self administered paper survey to delegates attending anesthesia conferences. Questions were asked on how high-risk, emergency surgical cases remote site and critical care patients were referred to anesthetists and presence of rapid response teams.

RESULTS: The response rate was 43.8%. Sixty percent (55.3-64.8, P - 0.001) reported high-risk elective cases were referred after admission. Sixty-eight percent (63.42-72.45, P - 0.001) opined preoperative resting echocardiographs were useful. Six percent (4.16-8.98, P - 0.001) reported emergency room referral before arrival of the patient. Twenty-five percent (20.92-29.42, P - 0.001) indicated high-risk obstetric cases were referred immediately after admission. Consultants practiced preoperative stabilization more commonly than residents (32% vs. 22%) (P - 0.004). For emergency surgery, resident referrals occurred after surgery time was fixed (40% vs. 28%) (P - 0.012). Residents dealt with more cases without full investigations in obstetrics (28% vs. 15) (P = 0.002). Remote site patients were commonly referred to residents after sedation attempts (32% vs. 20%) (P = 0.036). Only 34.8 said hospitals where they practiced had dedicated cardiac arrest team in place.

CONCLUSIONS: Anesthetic departments must periodically assess whether subgroups of patients are being referred in line with current guidelines. Cancellations, critical incidents and complications arising out of referral delays, and improper referrals must be recorded as referral incidents and a separate referral incident registry must be maintained in each department. Regular referral audits must be encouraged.

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PMCID: PMC5594794

PMID: 28928575

Conflict of interest statement: There are no conflicts of interest.

133: Nath D, Arava S, Ray R, Bhoje AK, Saxena R, Chaudhary SK.

Immunohistochemical characterization of glandular elements in glandular cardiac myxoma: Study of six cases. *Indian J Pathol Microbiol.* 2017 Jul-Sep;60(3):319-323. doi: 10.4103/IJPM.IJPM_225_16. PubMed PMID: 28937365.

Back ground: Glandular cardiac myxoma has varying clinical presentation with uncertain histogenesis and debatable immunohistochemical profile. Glandular epithelial differentiations are rare phenomenon known to be present as an intrinsic component of the tumor. The origin of the glands has been attributed to epithelial differentiation of a totipotent cardiomyogenic precursor cells or the entrapped foregut rests in the tumor.**MATERIALS AND METHODS:** Retrospective study includes six cases of glandular cardiac myxoma collected over a perior of 4 years. Sections were examined to define the histogenesis, histological and immunohistochemical profile of the glandular elements.

RESULTS: Incidence of glandular cardiac myxoma was 6.6% with a male to female ratio of 1:2. Mean age was 49.9 years. Left atrium was the commonest site. Five were sporadic and one was familial. Chest pain and dyspnea were the commonest

clinical symptoms. Histologically all myxoma showed well formed glandular structures with typical myxomatous area. No atypia, mitosis or necrosis was identified in the glandular elements. Markers in six cases of glandular cardiac myxoma were immunopositive for CK7, CK 19, EMA, CEA, focally for E-cadherin while immunonegative for CK20, Chromogranin, Synaptophysin, calretenin, vimentin, B-catenin, TTF-1 and GCDFP-15 favoring enteric differentiation.

CONCLUSION: Glandular cardiac myxoma is a rare entity which shows characteristics similar to those of classical cardiac myxoma with benign glandular elements showing enteric differentiation. Complete surgical excision is the treatment of choice with good prognosis. It is important to recognize this entity to avoid an erroneous diagnosis of metastatic adenocarcinoma.

DOI: 10.4103/IJPM.IJPM_225_16

PMID: 28937365

134: Naz H, Tarique M, Khan P, Luqman S, Ahamad S, Islam A, Ahmad F, Hassan MI. Evidence of vanillin binding to CAMKIV explains the anti-cancer mechanism in human hepatic carcinoma and neuroblastoma cells. *Mol Cell Biochem.* 2017 Jul 25. doi: 10.1007/s11010-017-3111-0. [Epub ahead of print] PubMed PMID: 28744811. Human calcium/calmodulin-dependent protein kinase IV (CAMKIV) is a member of Ser/Thr kinase family, and is associated with different types of cancer and neurodegenerative diseases. Vanillin is a natural compound, a primary component of the extract of the vanilla bean which possesses varieties of pharmacological features including anti-oxidant, anti-inflammatory, anti-bacterial and anti-tumor. Here, we have investigated the binding mechanism and affinity of vanillin to the CAMKIV which is being considered as a potential drug target for cancer and neurodegenerative diseases. We found that vanillin binds strongly to the active site cavity of CAMKIV and stabilized by a large number of non-covalent interactions. We explored the utility of vanillin as anti-cancer agent and found that it inhibits the proliferation of human hepatocyte carcinoma (HepG2) and neuroblastoma (SH-SY5Y) cells in a dose-dependent manner. Furthermore, vanillin treatment resulted into the significant reduction in the mitochondrial membrane depolarization and ROS production that eventually leads to apoptosis in HepG2 and SH-SY5Y cancer cells. These findings may offer a novel therapeutic approach by targeting the CAMKIV using natural product and its derivative with a minimal side effect.

DOI: 10.1007/s11010-017-3111-0

PMID: 28744811

135: Neelapu BC, Kharbanda OP, Sardana V, Gupta A, Vasamsetti S, Balachandran R, Rana SS, Sardana HK. A pilot study for segmentation of pharyngeal and sino-nasal airway subregions by automatic contour initialization. *Int J Comput Assist Radiol Surg.* 2017 Nov;12(11):1877-1893. doi: 10.1007/s11548-017-1650-1. Epub 2017 Jul 28. PubMed PMID: 28755036.

PURPOSE: The objective of the present study is to put forward a novel automatic segmentation algorithm to segment pharyngeal and sino-nasal airway subregions on 3D CBCT imaging datasets.

METHODS: A fully automatic segmentation of sino-nasal and pharyngeal airway subregions was implemented in MATLAB programming environment. The novelty of the algorithm is automatic initialization of contours in upper airway subregions. The algorithm is based on boundary definitions of the human anatomy along with shape constraints with an automatic initialization of contours to develop a complete algorithm which has a potential to enhance utility at clinical level. Post-initialization; five segmentation techniques: Chan-Vese level set (CVL),

localized Chan-Vese level set (LCVL), Bhattacharya distance level set (BDL), Grow Cut (GC), and Sparse Field method (SFM) were used to test the robustness of automatic initialization.

RESULTS: Precision and F-score were found to be greater than 80% for all the regions with all five segmentation methods. High precision and low recall were observed with BDL and GC techniques indicating an under segmentation. Low precision and high recall values were observed with CVL and SFM methods indicating an over segmentation. A Larger F-score value was observed with SFM method for all the subregions. Minimum F-score value was observed for naso-ethmoidal and sphenoidal air sinus region, whereas a maximum F-score was observed in maxillary air sinuses region. The contour initialization was more accurate for maxillary air sinuses region in comparison with sphenoidal and naso-ethmoid regions.

CONCLUSION: The overall F-score was found to be greater than 80% for all the airway subregions using five segmentation techniques, indicating accurate contour initialization. Robustness of the algorithm needs to be further tested on severely deformed cases and on cases with different races and ethnicity for it to have global acceptance in Katradental radKatraiology workflow.

DOI: 10.1007/s11548-017-1650-1
PMID: 28755036

136: Packiasabapathy SK, Kashyap L, Arora MK, Batra RK, Mohan VK, Prasad G, Yadav CS. Effect of dexmedetomidine as an adjuvant to bupivacaine in femoral nerve block for perioperative analgesia in patients undergoing total knee replacement arthroplasty: A dose-response study. *Saudi J Anaesth.* 2017 Jul-Sep;11(3):293-298. doi: 10.4103/sja.SJA_624_16. PubMed PMID: 28757829; PubMed Central PMCID: PMC5516491.

CONTEXT: Dexmedetomidine is being increasingly used in nerve blocks. However, there are only a few dose determination studies.

AIMS: To compare two doses of dexmedetomidine, in femoral nerve block, for postoperative analgesia after total knee arthroplasty (TKA).

SETTINGS AND DESIGN: A prospective, randomized, controlled trial was conducted in the Department of Anesthesia at AIIMS, a Tertiary Care Hospital.

MATERIALS AND METHODS: Sixty American Society of Anesthesiologists I-II patients undergoing TKA under subarachnoid block were randomized to three Groups A, B, and C. Control Group A received 20 ml (0.25%) of bupivacaine in femoral nerve block. Groups B and C received 1 and 2 µg/kg dexmedetomidine along with bupivacaine for the block, respectively. Outcomes measured were analgesic efficacy measured in terms of visual analog scale (VAS) score at rest and passive motion, duration of postoperative analgesia, and postoperative morphine consumption. Adverse effects of dexmedetomidine were also studied.

STATISTICAL ANALYSIS USED: All qualitative data were analyzed using Chi-square test and VAS scores using Kruskal-Wallis test. Comparison of patient-controlled analgesia (PCA) morphine consumption and time to first use of PCA were done using ANOVA followed by Least Significant Difference test. A $P < 0.05$ was considered statistically significant.

RESULTS: The VAS score at rest was significantly lower in Group C compared to Groups A and B ($P < 0.05$). There was no difference in VAS score at motion between Groups B and C. The mean duration of analgesia was significantly longer in Group C (6.66 h) compared to Groups A (4.55 h) and B (5.70 h). Postoperative mean morphine consumption was significantly lower in Group C (22.85 mg) compared to Group A (32.15 mg) but was comparable to Group B (27.05 mg). There was no significant difference in adverse effects between the groups.

CONCLUSION: The use of dexmedetomidine at 2 µg/kg dose in femoral nerve block is superior to 1 µg/kg for providing analgesia after TKA, although its role in

facilitating early ambulation needs further evaluation.

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PMCID: PMC5516491
PMID: 28757829

Conflict of interest statement: There are no conflicts of interest.

137: Panda A, Bhalla AS, Goyal A. Bronchial artery embolization in hemoptysis: a systematic review. *Diagn Interv Radiol*. 2017 Jul-Aug;23(4):307-317. doi: 10.5152/dir.2017.16454. PubMed PMID: 28703105; PubMed Central PMCID: PMC5508955.

We systematically reviewed the role of bronchial artery embolization (BAE) in hemoptysis. Literature search was done for studies on BAE published between 1976 and 2016. Twenty-two studies published in English, with sample size of at least 50 patients, reporting indications, technique, efficacy, and follow-up were included in the final analysis. Common indications for BAE included tuberculosis (TB), post-tubercular sequelae, bronchiectasis, and aspergillomas. Most common embolizing agent used was polyvinyl alcohol (size, 300-600 μ m) with increasing use of glue in recent years. Overall immediate clinical success rate of BAE, defined as complete cessation of hemoptysis, varied from 70%-99%. However, recurrence rate remains high, ranging from 10%-57%, due to incomplete initial embolization, recanalization of previously embolized arteries, and recruitment of new collaterals. Presence of nonbronchial systemic collaterals, bronchopulmonary shunting, aspergillomas, reactivation TB, and multidrug resistant TB were associated with significantly higher recurrence rates ($P < 0.05$). Rate of major complications remained negligible and stable over time with median incidence of 0.1% (0%-6.6%). Despite high hemoptysis recurrence rates, BAE continues to be the first-line, minimally invasive treatment of hemoptysis in emergency settings, surgically unfit patients, or in patients with diffuse or bilateral lung disease.

DOI: 10.5152/dir.2017.16454
PMCID: PMC5508955
PMID: 28703105

138: Panda PK, Suri TM, Sood R, Bhalla AS, Sharma MC, Ranjan P. Overlap syndrome: juvenile dermatomyositis and perinuclear antineutrophil cytoplasmic autoantibody vasculitis, a case report and review of literature. *Int J Rheum Dis*. 2017 Jul 27. doi: 10.1111/1756-185X.13142. [Epub ahead of print] PubMed PMID: 28752636.

139: Pandey A, Dhingra N, Kumar P, Sahu D, Reddy DCS, Narayan P, Raj Y, Sangal B, Chandra N, Nair S, Singh J, Chavan L, Srivastava DJ, Jha UM, Verma V, Kant S, Bhattacharya M, Swain P, Haldar P, Singh L, Bakkali T, Stover J, Ammassari S. Sustained progress, but no room for complacency: Results of 2015 HIV estimations in India. *Indian J Med Res*. 2017 Jul;146(1):83-96. doi: 10.4103/ijmr.IJMR_1658_16. PubMed PMID: 29168464.

BACKGROUND & OBJECTIVES: Evidence-based planning has been the cornerstone of India's response to HIV/AIDS. Here we describe the process, method and tools used for generating the 2015 HIV estimates and provide a summary of the main results. **METHODS:** Spectrum software supported by the UNAIDS was used to produce HIV estimates for India as a whole and its States/Union Territories. This tool takes into consideration the size and HIV prevalence of defined population groups and programme data to estimate HIV prevalence, incidence and mortality over time as well as treatment needs.

RESULTS: India's national adult prevalence of HIV was 0.26 per cent in 2015. Of the 2.1 million people living with HIV/AIDS, the largest numbers were in Andhra Pradesh, Maharashtra and Karnataka. New HIV infections were an estimated 86,000 in 2015, reflecting a decline by around 32 per cent from 2007. The declining trend in incidence was mirrored in most States, though an increasing trend was detected in Assam, Chandigarh, Chhattisgarh, Gujarat, Sikkim, Tripura and Uttar Pradesh. AIDS-related deaths were estimated to be 67,600 in 2015, reflecting a 54 per cent decline from 2007. There were variations in the rate and trend of decline across India for this indicator also.

INTERPRETATION & CONCLUSIONS: While key indicators measured through Spectrum modelling confirm success of the National AIDS Control Programme, there is no room for complacency as rising incidence trends in some geographical areas and population pockets remain the cause of concern. Progress achieved so far in responding to HIV/AIDS needs to be sustained to end the HIV epidemic.

DOI: 10.4103/ijmr.IJMR_1658_16

PMID: 29168464

140: Panwar R, Singh PM. Efficacy and safety of metallic stents in comparison to plastic stents for endoscopic drainage of peripancreatic fluid collections: a meta-analysis and trial sequential analysis. *Clin J Gastroenterol*. 2017 Oct;10(5):403-414. doi: 10.1007/s12328-017-0763-y. Epub 2017 Jul 18. Review. PubMed PMID: 28721541.

Metallic stents are being increasingly used for endoscopic drainage of peripancreatic fluid collections (PFCs) but their superiority over plastic stents has not been proven. We carried out a meta-analysis to consolidate the results from available studies and to suggest evidence-based recommendations. Studies that compared plastic and metallic stents for endoscopic drainage of PFCs and published before October 2016 were searched. Comparisons were performed for clinical success, adverse events, salvage interventions, mortality, technical success and recurrence. We included six studies with 856 patients (479 in the metallic stent group and 377 in the plastic stent group). The clinical success rate was significantly higher with metallic stents than with plastic stents (Mantel-Haenszel odds ratio [MH-OR] 3.22; 95% CI 1.87-5.54; $P < 0.001$). The rate of adverse events (MH-OR 0.40; 95% CI 0.24-0.65; $P < 0.001$) and the need for salvage procedures (MH-OR 0.31; 95% CI 0.13-0.70; $P = 0.01$) were also significantly lower with the use of metallic stents. Subgroup analysis for the type of PFC also found better results with the metallic stents. The results of Egger's regression test (X-axis intercept at -0.63, $P = 0.47$) and funnel plot did not suggest any significant publication bias. We conclude that compared to plastic stents, the use of metallic stents for endoscopic drainage of PFCs is associated with significantly better clinical success and significantly lower rates of adverse events and the need for salvage procedures. However, further high-quality randomized trials are required to confirm these findings.

DOI: 10.1007/s12328-017-0763-y

PMID: 28721541

141: Parida GK, Roy SG, Kumar R. FDG-PET/CT in Skeletal Muscle: Pitfalls and Pathologies. *Semin Nucl Med*. 2017 Jul;47(4):362-372. doi: 10.1053/j.semnuclmed.2017.02.003. Epub 2017 Apr 20. Review. PubMed PMID: 28583276.

FDG-PET/CT is an integral part of modern-day practice of medicine. By detecting increased cellular metabolism, FDG-PET/CT can help us detect infection, inflammatory disorders, or tumors, and also help us in prognostication of

patients. However, one of the most important challenges is to correctly differentiate the abnormal uptake that is potentially pathologic from the physiological uptake. So while interpreting a PET/CT, one must be aware of normal biodistribution and different physiological variants of FDG uptake. Skeletal muscles constitute a large part of our body mass and one of the major users of glucose. Naturally, they are often the site of increased FDG uptake in a PET study. We as a nuclear medicine physician must be aware of all the pitfalls of increased skeletal muscle uptake to differentiate between physiological and pathologic causes. In this review, we have discussed the different causes and patterns of physiological FDG uptake in skeletal muscles. This knowledge of normal physiological variants of FDG uptake in the skeletal muscles is essential for differentiating pathologic uptake from the physiological ones. Also, we reviewed the role of FDG-PET/CT in various benign and malignant diseases involving skeletal muscle.

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PMID: 28583276

142: Parmar A, Ranjan R, Sagar R. Subacute Sclerosing Panencephalitis Presenting with Isolated Positive Psychotic and Catatonic Symptoms. *Indian J Psychol Med.* 2017 Jul-Aug;39(4):534-536. doi: 10.4103/0253-7176.211756. PubMed PMID: 28852257; PubMed Central PMCID: PMC5560011.

Subacute sclerosing panencephalitis (SSPE) is a rare slowly progressing neurological illness. Although patients with SSPE initially present with symptoms such as myoclonic jerks, cognitive decline, and personality/behavioral changes usually, rarely pure psychiatric symptoms (e.g., mania, psychosis, and catatonia) have also been reported during the initial course of the illness. We report an unusual case of an adolescent with SSPE presenting with prominent positive psychotic and catatonic symptoms with the absence of classical symptoms of SSPE in initial course of illness and further discussed the relevant literature.

DOI: 10.4103/0253-7176.211756
PMCID: PMC5560011
PMID: 28852257

Conflict of interest statement: There are no conflicts of interest.

143: Parmar A, Yadav P, Patra BN, Sagar R. Successful Long-term Management of a Child with Kleine-Levin Syndrome with Low-dose Lithium. *Indian J Psychol Med.* 2017 Jul-Aug;39(4):531-533. doi: 10.4103/0253-7176.211741. PubMed PMID: 28852256; PubMed Central PMCID: PMC5560010.

Kleine-Levin syndrome (KLS) is a rare disorder characterized by episodic hypersomnia along with cognitive and behavioral disturbances (i.e., hyperphagia and hypersexuality). It is commonly seen in a young male. Not much is known about its long-term management; however, many reports suggest the usefulness of anticonvulsants and lithium for the same. We hereby report a case of childhood KLS from India who was successfully treated with low-dose lithium and discuss the relevant literature.

DOI: 10.4103/0253-7176.211741
PMCID: PMC5560010
PMID: 28852256

Conflict of interest statement: There are no conflicts of interest.

144: Pastel H, Chakrabarty B, Saini L, Kumar A, Gulati S. A case of anti-N-methyl-D-aspartate (NMDA) receptor encephalitis possibly triggered by an episode of Japanese B encephalitis. *Neurol India*. 2017 Jul-Aug;65(4):895-897. doi: 10.4103/neuroindia.NI_340_16. PubMed PMID: 28681777.

145: Patel O, Shahulhameed S, Shivashankar R, Tayyab M, Rahman A, Prabhakaran D, Tandon N, Jaacks LM. Association between full service and fast food restaurant density, dietary intake and overweight/obesity among adults in Delhi, India. *BMC Public Health*. 2017 Jul 19;18(1):36. doi: 10.1186/s12889-017-4598-8. Erratum in: *BMC Public Health*. 2017 Sep 22;17 (1):736. PubMed PMID: 28724371; PubMed Central PMCID: PMC5518129.

BACKGROUND: The food environment has been implicated as an underlying contributor to the global obesity epidemic. However, few studies have evaluated the relationship between the food environment, dietary intake, and overweight/obesity in low- and middle-income countries (LMICs). The aim of this study was to assess the association of full service and fast food restaurant density with dietary intake and overweight/obesity in Delhi, India.

METHODS: Data are from a cross-sectional, population-based study conducted in Delhi. Using multilevel cluster random sampling, 5364 participants were selected from 134 census enumeration blocks (CEBs). Geographic information system data were available for 131 CEBs (n = 5264) from a field survey conducted using hand-held global positioning system devices. The number of full service and fast food restaurants within a 1-km buffer of CEBs was recorded by trained staff using ArcGIS software, and participants were assigned to tertiles of full service and fast food restaurant density based on their resident CEB. Height and weight were measured using standardized procedures and overweight/obesity was defined as a BMI ≥ 25 kg/m².

RESULTS: The most common full service and fast food restaurants were Indian savory restaurants (57.2%) and Indian sweet shops (25.8%). Only 14.1% of full service and fast food restaurants were Western style. After adjustment for age, household income, education, and tobacco and alcohol use, participants in the highest tertile of full service and fast food restaurant density were less likely to consume fruit and more likely to consume refined grains compared to participants in the lowest tertile (both $p < 0.05$). In unadjusted logistic regression models, participants in the highest versus lowest tertile of full service and fast food restaurant density were significantly more likely to be overweight/obese: odds ratio (95% confidence interval), 1.44 (1.24, 1.67). After adjustment for age, household income, and education, the effect was attenuated: 1.08 (0.92, 1.26). Results were consistent with further adjustment for tobacco and alcohol use, moderate physical activity, and owning a bicycle or motorized vehicle.

CONCLUSIONS: Most full service and fast food restaurants were Indian, suggesting that the nutrition transition in this megacity may be better characterized by the large number of unhealthy Indian food outlets rather than the Western food outlets. Full service and fast food restaurant density in the residence area of adults in Delhi, India, was associated with poor dietary intake. It was also positively associated with overweight/obesity, but this was largely explained by socioeconomic status. Further research is needed exploring these associations prospectively and in other LMICs.

DOI: 10.1186/s12889-017-4598-8

PMCID: PMC5518129

PMID: 28724371

146: Pattanayak RD, Rajhans P, Shakya P, Gautam N, Khandelwal SK. Lithium-induced polyuria and amiloride: Key issues and considerations. *Indian J Psychiatry*. 2017 Jul-Sep;59(3):391-392. doi: 10.4103/psychiatry.IndianJPsychiatry_168_17. PubMed PMID: 29085107; PubMed Central PMCID: PMC5659098.

147: Pujari A, Bajaj MS, Obedulla H, Mutha V. Acquired capillary haemangioma of the eyelid in a 10-year-old boy. *BMJ Case Rep*. 2017 Jul 31;2017. pii: bcr-2017-221102. doi: 10.1136/bcr-2017-221102. PubMed PMID: 28765483.

A 10-year-old boy presented with painless, gradually increasing mass in right upper lid without preceding trauma for the past 2 months. On examination, the mass was bluish red, soft to firm in consistency which bleeds on touch. Contrast-enhanced CT showed a well-defined heterogeneously enhancing mass lesion without any continuity with the underlying bone or the orbital cavity. Complete excision of the mass was performed under general anaesthesia, subsequent histopathological examination showed findings consistent with an acquired variant of capillary haemangioma. At the end of 1 year, patient is cosmetically fine without any recurrence/morbidity.

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PMID: 28765483

Conflict of interest statement: Competing interests: None declared.

148: Raheja A, Karsy M, Eli I, Guan J, Couldwell WT. Endonasal Operative Corridor Expansion by Sphenoidal Pneumosinus Dilatans in Tuberculum Sellae Meningiomas. *World Neurosurg*. 2017 Oct;106:686-692. doi: 10.1016/j.wneu.2017.07.050. Epub 2017 Jul 19. PubMed PMID: 28735137.

BACKGROUND: A retrospective cohort study of patients with tuberculum sellae meningioma (TSM)-associated sphenoidal pneumosinus dilatans (PSD) over a recent epoch was evaluated using a propensity-matched morphometric analysis.
METHODS: A total of 38 patients with TSM and sphenoidal PSD were identified and matched by age and sex to 32 patients without tumors (controls).
RESULTS: Overall, no significant difference between test and control groups was noted in sphenoid sinus size or other parameters; however, significantly greater mean distances from the posterior margin of the planum sphenoidale to the diaphragma sella (0.76 ± 0.23 vs. 1.03 ± 0.27 , respectively; $P = 0.0001$) and angle between the planum sphenoidale to anterior face of sella turcica (113.41 ± 10.58 vs. 123.21 ± 12.55 , respectively; $P = 0.001$) were seen in patients with TSM and PSD, suggestive of a selective expansion of the tuberculum sellae region. TSM/sphenoid sinus morphologies were divided into 3 types (A, B, and C) based on the extent of tumor and sinus morphology. There was progressive increase in tumor volume and anteroposterior sinus diameter from sphenoidal PSD types A-C, which influenced selection of surgical approach.
CONCLUSIONS: This study suggests that TSM-associated sphenoidal PSD leads to more selective splaying of the tuberculum sellae region rather than cumulative increase in sinus volume. This may lead to operative corridor expansion for endonasal access to TSM associated with sphenoidal PSD. A radiologic classification scheme for sphenoidal PSD associated with TSM is suggested that may aid surgical decision-making.

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PMID: 28735137

149: Raheja A, Satyarthee GD. Sphenoid wing en plaque meningioma development following craniopharyngioma surgery and radiotherapy: Radiation-induced after three decades. *Asian J Neurosurg*. 2017 Jul-Sep;12(3):358-361. doi: 10.4103/1793-5482.180946. Review. PubMed PMID: 28761508; PubMed Central PMCID: PMC5532915.

Radiation therapy is widely used as adjuvant or primary treatment modality of neoplastic lesions. Radiation therapy may cause an acute adverse effect such as brain edema, radiation necrosis, or delayed, for example, panhypopituitarism, vasculitis, and rare de-novo neoplasm development. However, radiation-induced meningioma (RIM) occurrence is extremely rare. A detailed PubMed and Medline search yielded only three isolated Case-reports of RIM development in craniopharyngioma cases receiving radiotherapy after surgery. All cases occurred in patients < 13-year age, with male preponderance, detected after a mean interval of 23-year, the range being 2-44 years. Two had solitary while the third had multiple meningiomas. Authors report an 8-year-old female, who was operated for craniopharyngioma and received adjuvant therapy, was asymptomatic for next 30 years, met a road traffic accident and magnetic resonance imaging brain revealed incidental right sphenoid wing en plaque meningioma. She was planned for gamma-knife therapy as unwilling for surgical intervention. Management of RIM development after radiotherapy of craniopharyngioma along with pertinent literature is reviewed briefly.

DOI: 10.4103/1793-5482.180946

PMCID: PMC5532915

PMID: 28761508

Conflict of interest statement: There are no conflicts of interest.

150: Rai S, Bhardwaj U, Singh S, Misra A. Effect of processing time on analysis of rare event in minimal residual disease study. *Indian J Pathol Microbiol*. 2017 Jul-Sep;60(3):449-451. doi: 10.4103/IJPM.IJPM_353_16. PubMed PMID: 28937402.

151: Ramaiah A, Dai L, Contreras D, Sinha S, Sun R, Arumugaswami V. Comparative analysis of protein evolution in the genome of pre-epidemic and epidemic Zika virus. *Infect Genet Evol*. 2017 Jul;51:74-85. doi: 10.1016/j.meegid.2017.03.012. Epub 2017 Mar 14. PubMed PMID: 28315476.

Zika virus (ZIKV) causes microcephaly in congenital infection, neurological disorders, and poor pregnancy outcome and no vaccine is available for use in humans or approved. Although ZIKV was first discovered in 1947, the exact mechanism of virus replication and pathogenesis remains unknown. Recent outbreaks of Zika virus in the Americas clearly suggest a human-mosquito cycle or urban cycle of transmission. Understanding the conserved and adaptive features in the evolution of ZIKV genome will provide a hint on the mechanism of ZIKV adaptation to a new cycle of transmission. Here, we show comprehensive analysis of protein evolution of ZIKV strains including the current 2015-16 outbreak. To identify the constraints on ZIKV evolution, selection pressure at individual codons, immune epitopes and co-evolving sites were analyzed. Phylogenetic trees show that the ZIKV strains of the Asian genotype form distinct cluster and share a common

ancestor with African genotype. The TMRCA (Time to the Most Recent Common Ancestor) for the Asian lineage and the subsequently evolved Asian human strains was calculated at 88 and 34 years ago, respectively. The proteome of current 2015/16 epidemic ZIKV strains of Asian genotype was found to be genetically conserved due to genome-wide negative selection, with limited positive selection. We identified a total of 16 amino acid substitutions in the epidemic and pre-epidemic strains from human, mosquito, and monkey hosts. Negatively selected amino acid sites of Envelope protein (E-protein) (positions 69, 166, and 174) and NS5 (292, 345, and 587) were located in central dimerization domains and C-terminal RNA-directed RNA polymerase regions, respectively. The predicted 137 (92 CD4 TCEs; 45 CD8 TCEs) immunogenic peptide chains comprising negatively selected amino acid sites can be considered as suitable target for sub-unit vaccine development, as these sites are less likely to generate immune-escape variants due to strong functional constraints operating on them. The targeted changes at the amino acid level may contribute to better adaptation of ZIKV strains to human-mosquito cycle or urban cycle of transmission.

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PMID: 28315476

152: Ramakrishna MC, Singh S, Khandelwal A. A rare case of variation in the anatomical relationship between the common carotid artery and the internal jugular vein due to enlarged thyroid. *Indian J Anaesth.* 2017 Jul;61(7):601-602. doi: 10.4103/ija.IJA_369_17. PubMed PMID: 28794538; PubMed Central PMCID: PMC5530751.

153: Ramanujam B, Bajaj BK, Kaur K, Anand KS, Buxi G. Is Depression Related to Low Folate Levels in People with Epilepsy? An Observational Study and Meta-analysis. *J Neurosci Rural Pract.* 2017 Jul-Sep;8(3):381-388. doi: 10.4103/jnrp.jnrp_468_16. PubMed PMID: 28694617; PubMed Central PMCID: PMC5488558.

BACKGROUND: Both depression and low serum levels of folate are common in people with epilepsy (PWE), the latter especially in patients on hepatic enzyme-inducing antiepileptic drugs (AEDs). We did a cross-sectional study and a meta-analysis to assess if lower folate levels have any relation with depression in PWE.

MATERIALS AND METHODS: Two hundred and one PWE were recruited and assessed for depression using the Inventory of Depressive Symptomatology-Self-Rated (IDS-SR) and Inventory of Depressive Symptomatology-Clinician Rated; serum folate levels were measured in them at the same time. Literature search was carried out and studies with data on depression as well as folate levels in PWE were included. Statistical analysis to determine frequency of depression, low folate levels, and relation between them among our cases and the pooled data from the included studies was done.

RESULTS: Depression was observed in 65.68% and low serum folate (<4 ng/ml) in 48.75% of PWE (over 80% on older AEDs); there was no statistically significant correlation between them. However, on analyzing the pooled data of six studies including the present, the Fisher's z-transformed correlation coefficient was -0.1690 (95% confidence interval [-0.3175, -0.0124], P = 0.0464).

CONCLUSIONS: Depression and low folate levels are common in PWE. Low folate levels have a mild but significant negative correlation with depression in this population, and folate supplementation would be advisable for those on the older AEDs.

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PMCID: PMC5488558
PMID: 28694617

Conflict of interest statement: There are no conflicts of interest.

154: Ramteke P, Iyer VK, Madan K, Gamangatti S, Mridha AR. Fine needle aspiration cytology diagnosis of metastatic malignant diffuse type tenosynovial giant cell tumor. *J Cytol.* 2017 Jul-Sep;34(3):174-176. doi: 10.4103/0970-9371.208111. PubMed PMID: 28701836; PubMed Central PMCID: PMC5492760.

Tenosynovial giant cell tumors (TGCTs) arise from the synovium of joint, bursa, and tendon sheath, and are classified into localized and diffuse types. Diffused type often affects the large joint, and has more recurrence, metastasis, and malignant transformation potential compared to the localized type. Malignant diffused TGCT (D-TGCT) usually occurs as a large tumor (>5 cm), in older patients, and its histopathologic features include necrosis, cellular anaplasia, prominent nucleoli, high nuclear cytoplasmic ratio, brisk mitosis, discohesion of tumor cells, paucity of giant cells, and a diffuse growth pattern. At least five of these criteria are required for the histopathologic diagnosis of malignant TGCT because the benign TGCT also shares many of these morphological features. We describe the cytomorphologic features of a malignant D-TGCT from an unusual case of pulmonary metastasis in an adult patient. Fine needle aspiration cytologic features of malignant D-TGCT have not been described earlier in the English literature.

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PMCID: PMC5492760
PMID: 28701836

Conflict of interest statement: There are no conflicts of interest.

155: Roy A, Praveen PA, Amarchand R, Ramakrishnan L, Gupta R, Kondal D, Singh K, Sharma M, Shukla DK, Tandon N, Reddy KS, Krishnan A, Prabhakaran D. Changes in hypertension prevalence, awareness, treatment and control rates over 20 years in National Capital Region of India: results from a repeat cross-sectional study. *BMJ Open.* 2017 Jul 12;7(7):e015639. doi: 10.1136/bmjopen-2016-015639. PubMed PMID: 28706098.

BACKGROUND AND OBJECTIVES: Despite being one of the leading risk factors of cardiovascular mortality, there are limited data on changes in hypertension burden and management from India. This study evaluates trend in the prevalence, awareness, treatment and control of hypertension in the urban and rural areas of India's National Capital Region (NCR).

DESIGN AND SETTING: Two representative cross-sectional surveys were conducted in urban and rural areas (survey 1 (1991-1994); survey 2 (2010-2012)) of NCR using similar methodologies.

PARTICIPANTS: A total of 3048 (mean age: 46.8±9.0 years; 52.3% women) and 2052 (mean age: 46.5±8.4 years; 54.2% women) subjects of urban areas and 2487 (mean age: 46.6±8.8 years; 57.0% women) and 1917 (mean age: 46.5±8.5 years; 51.3% women) subjects of rural areas were included in survey 1 and survey 2, respectively.

PRIMARY AND SECONDARY OUTCOME MEASURES: Hypertension was defined as per Joint National Committee VII guidelines. Structured questionnaire was used to measure the awareness and treatment status of hypertension. A mean systolic blood pressure <140mm Hg and diastolic blood pressure <90mm Hg was defined as control of hypertension among the participants with hypertension.

RESULTS: The age and sex standardised prevalence of hypertension increased from 23.0% to 42.2% ($p < 0.001$) and 11.2% to 28.9% ($p < 0.001$) in urban and rural NCR, respectively. In both surveys, those with high education, alcohol use, obesity and high fasting blood glucose were at a higher risk for hypertension. However, the change in hypertension prevalence between the surveys was independent of these risk factors (adjusted OR (95%CI): urban (2.3 (2.0 to 2.7)) rural (3.1 (2.4 to 4.0))). Overall, there was no improvement in awareness, treatment and control rates of hypertension in the population.

CONCLUSION: There was marked increase in prevalence of hypertension over two decades with no improvement in management.

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PMID: 28706098

Conflict of interest statement: Competing interests: None declared.

156: Roy KK, Metta S, Kansal Y, Kumar S, Singhal S, Vanamail P. A Prospective Randomized Study Comparing Unipolar Versus Bipolar Hysteroscopic Myomectomy in Infertile Women. *J Hum Reprod Sci.* 2017 Jul-Sep;10(3):185-193. doi: 10.4103/jhrs.JHRS_134_16. PubMed PMID: 29142447; PubMed Central PMCID: PMC5672724.

Study Objective: To compare the operative and reproductive outcome of hysteroscopic myomectomy using unipolar resectoscope versus bipolar resectoscope in patients with infertility and menorrhagia.

Design: Randomized, prospective, parallel, comparative, single-blinded study.

Design Classification: Canadian Task Force classification I.

Setting: Tertiary care institute.

Patients: Sixty women with submucous myoma and infertility.

Interventions: Hysteroscopic myomectomy performed with unipolar resectoscope or bipolar resectoscope.

Measurements: Primary outcome measures were the pregnancy-related indicators. Secondary outcome measures were the operative parameters, harmful outcomes related to the procedure, and comparison of improvement levels in the menstrual pattern after surgery between the two groups.

Main Results: A total of 60 patients were randomized into two groups of equal size. Baseline characteristics were not significantly different between the two groups. Reduction in sodium level from pre- to postsurgery was significantly ($P = 0.001$) higher in the unipolar group. Nine patients (30%) in the unipolar group had hyponatremia in the postoperative period compared to none in the bipolar group ($P = 0.002$). However, there was no significant difference in the other operative parameters between the two groups. In both the groups, a significant improvement in the menstrual symptoms was observed after myomectomy.

Pregnancy-related outcomes were similar in both the groups.

Conclusion: The use of bipolar resectoscope for hysteroscopic myomectomy is associated with lesser risk of hyponatremia compared to unipolar resectoscope.

Bipolar resectoscopic myomectomy is found to be an effective and safer alternative to unipolar resectoscopy with similar reproductive outcome.

DOI: 10.4103/jhrs.JHRS_134_16

PMCID: PMC5672724

PMID: 29142447

Conflict of interest statement: There are no conflicts of interest.

157: Roy S, Takkar B, Chawla R, Kumar A. Macular phlebitis in a case of dengue retinopathy. *BMJ Case Rep.* 2017 Jul 6;2017. pii: bcr-2017-221362. doi: 10.1136/bcr-2017-221362. PubMed PMID: 28687702.

158: Roy SG, Parida GK, Tripathy S, Singhal A, Tripathi M, Bal C. In Vivo Demonstration of PSMA Expression in Adenocarcinoma Urinary Bladder Using ⁶⁸Ga-PSMA 11 PET/CT. *Clin Nucl Med.* 2017 Jul;42(7):542-543. doi: 10.1097/RLU.0000000000001683. PubMed PMID: 28481793.

In vitro and in vivo studies have demonstrated prostate-specific membrane antigen (PSMA) expression in various malignant and benign tumors. Based on the recent immunohistochemical study showing PSMA expression in adenocarcinoma of urinary bladder, we hypothesized that PSMA expression in adenocarcinoma of urinary bladder can be demonstrated in vivo using Ga-PSMA 11 PET/CT. We present a man with exstrophy bladder, presenting with adenocarcinoma urinary bladder referred for staging PET/CT. Both F-FDG and Ga-PSMA-11 PET/CT were done, which showed PSMA expression in the primary tumor as well as metastatic lymph nodes.

DOI: 10.1097/RLU.0000000000001683
PMID: 28481793

159: Sachdev HS, Sinha S, Sareen N, Pandey RM, Kapil U. Survival and Recovery in Severely Wasted Under-five Children Without Community Management of Acute Malnutrition Programme. *Indian Pediatr.* 2017 Oct 15;54(10):817-824. Epub 2017 Jul 11. PubMed PMID: 28699610.

OBJECTIVE: To evaluate recovery and survival of severely wasted children without community management of acute malnutrition programme.

DESIGN: Single time point follow-up (24th December 2013 - 2nd April, 2014) of severely wasted children identified in a community-based cross-sectional survey (September 2012 - October 2013).

SETTING: Rural Meerut District, Uttar Pradesh, India.

PARTICIPANTS: 409 severely wasted (WHO weight-for-height <-3Z), 6- to 59-month-old children.

OUTCOME MEASURES: Survival and recovery (weight-for-height ≥-2Z).

RESULTS: Median (IQR) follow-up contact duration was 7.4 (6.6, 10.1) months. Among 11 deaths, there were 5 (case-fatality 1.2%), 6 (1.5%), 8 (2.0%) and 10 (2.4%) events within 1, 1.5, 4 and 6 months of enrolment, respectively. Ten deaths occurred in children aged between 6 and 24 months. Younger age (P=0.04), poorer household-head occupation (P=0.04) and lower enrolment anthropometry (any variable; P<0.001) were significant predictors of mortality. Children below 18 months of age had higher adjusted mortality risk (HR 4.7; 95% CI 0.95, 22.51; P=0.053). At follow-up, 30% of survivors were still severely wasted, 39% were moderately wasted (weight-for-height -3 to <-2Z) and 31% had recovered spontaneously. Younger age (P<0.001), female gender (P=0.04) and longer follow-up duration (P=0.003) were significant independent predictors of recovery. The adjusted OR (95% CI) for recovery <24 months was 2.81 (1.70, 4.65).

CONCLUSION: Without community management of acute malnutrition in rural Meerut District, severely wasted children had low (1.2%-2.7%) case-fatality with long-term spontaneous recovery of around 25-30%.

PMID: 28699610

160: Saha S, Gantyalala SP, Aggarwal S, Sreenivas V, Tandon R, Goswami R. Long-term outcome of cataract surgery in patients with idiopathic hypoparathyroidism and its relationship with their calcemic status. *J Bone Miner Metab.* 2017 Jul;35(4):405-411. doi: 10.1007/s00774-016-0767-6. Epub 2016 Jul 27. PubMed PMID: 27465913.

Cataract is a cardinal manifestation of hypoparathyroidism. Although patients with hypoparathyroidism require cataract surgery at a younger age than individuals without hypoparathyroidism, there is limited information on the outcome of this surgery. We assessed long-term complications of cataract surgery in patients with idiopathic hypoparathyroidism (IH) and its relationship with their clinical and biochemical parameters. Twenty-seven patients with IH and 25 nonhypoparathyroid controls with a minimum follow-up of 2 years after cataract surgery were assessed for visual acuity, intraocular pressure, lens centricity, Nd:YAG laser capsulotomy, and the severity of posterior capsular opacification (PCO) and anterior capsular opacification. High-resolution optical slit-lamp images were analyzed by an ophthalmologist. Patients with IH had cataract surgery at a younger age than controls (34.0 ± 16.4 years vs 58.0 ± 11.2 years, $P < 0.001$). A higher proportion of IH patients had dense white PCO (75.0 % vs 39.4 %, $P = 0.004$), Nd:YAG laser capsulotomy (44.2 % vs 10.0 %, $P = 0.001$), anterior capsular opacification (97.7 % vs 84.2 %, $P = 0.03$), and a decentric lens (28.3% vs 2.6 %, $P = 0.001$) at a comparable time after surgery (8.6 ± 6.1 years vs 8.7 ± 6.8 years, $P = 0.85$). On regression analysis, the severity of PCO in IH correlated only with male sex and not with other factors, including serum total calcium and inorganic phosphorus levels at the baseline and during follow-up. To conclude, patients with IH are likelier than individuals without IH to develop PCO and to require Nd:YAG laser capsulotomy after cataract surgery. Proper precautions should be taken during surgery to minimize this complication in IH.

DOI: 10.1007/s00774-016-0767-6
PMID: 27465913

161: ---

162: Sahu A, Bhargava R, Sagar R, Mehta M. Need to Develop a Home-based Intervention for Specific Learning Disorder in Indian setting. *Indian J Psychol Med.* 2017 Jul-Aug;39(4):548-549. doi: 10.4103/IJPSYM.IJPSYM_93_17. PubMed PMID: 28852263; PubMed Central PMCID: PMC5560017.

163: Sankar J, Das RR, Mahapatro S, Sankar MJ. Effect of a Training Strategy in Improving Medication Fallacies During Pediatric Cardiopulmonary Resuscitation: A Before-and-After Study From a Developing Country. *Pediatr Emerg Care.* 2017 Jul 11. doi: 10.1097/PEC.0000000000001208. [Epub ahead of print] PubMed PMID: 28697155.

OBJECTIVE: This study aims to evaluate the effect of structured training on resident performance in improving medication fallacies during pediatric cardiopulmonary resuscitation (CPR).

METHODS: This before-and-after study was conducted in the pediatric acute care areas of tertiary care teaching hospitals of a developing country from August to December 2015. Case records of children younger than 18 years who underwent CPR were reviewed. Senior residents rotating through pediatric emergency department and pediatric intensive care unit were evaluated for their knowledge. Incidence of medication fallacies in pediatric CPR and change in the knowledge scores of residents posted in these areas were the main outcome measures.

RESULTS: One-hundred records were evaluated (pre-intervention, 54; post-intervention, 46). In the pre-intervention period, 25 had medication fallacies (documentation, 16; dosing, 9). In the post-intervention period, 7 fallacies pertaining to documentation (not dosing) were found. The incidence of severe fallacies decreased from 20% pretraining to 0% posttraining. The mean (SD) knowledge scores of residents increased from 7.9 (2.9) pretraining to 13 (1.4) posttraining. On univariate analysis, fallacies were found to be less if the resident was formally trained (pediatric advanced life support certified), if the patient was older, and during morning and night shifts as compared with evening shift. On multivariate analysis, however, only status of training (posttraining) (adjusted odds ratio, 0.12; 95% confidence interval, 0.02-0.68) and the morning shift (adjusted odds ratio, 0.03; 95% confidence interval, 0.001-0.72) remained significant with lower incidence of fallacies associated with these variables. CONCLUSIONS: Rates of medication fallacies in pediatric CPR declined with structured training. Documentation fallacies may not be eliminated completely with only 1-time training.

DOI: 10.1097/PEC.0000000000001208
PMID: 28697155

164: Saxena R, Sharma M, Singh D, Sharma P. Anterior and nasal transposition of inferior oblique muscle in cases of superior oblique palsy. J AAPOS. 2017 Aug;21(4):282-285. doi: 10.1016/j.jaapos.2017.05.026. Epub 2017 Jul 14. PubMed PMID: 28713055.

PURPOSE: To report long-term outcome of inferior oblique anterior and nasal transposition in superior oblique palsy.
METHODS: The medical records of patients with superior oblique palsy who underwent inferior oblique anterior nasal transposition were reviewed retrospectively. A comprehensive ophthalmic evaluation, including prism bar cover test and measurement of torsion, was performed for all cases. One-year postoperative results were evaluated for alignment in primary gaze, contralateral gaze, and upgaze; reduction in inferior oblique overaction and changes in fundus torsion to assess long-term outcome of the procedure.
RESULTS: A total of 12 patients were included. Three cases also underwent horizontal muscle surgery. Mean age at the time of surgery was 20.6 years. The median preoperative hypertropia was 21.5Δ (range, 12Δ-36Δ), corrected to 4.5Δ (range, 2Δ-10Δ) at 12 months postoperatively (P = 0.002). Median inferior oblique overaction decreased from +3 (range, +1 to +4) to 0 (range, -1 to +1). Preoperative fundus extorsion was 19.2° ± 6.7°; postoperative, 0.58° ± 1.8° (P < 0.001). No consecutive hypotropia or underaction in elevation was observed in 10 patients; 1 patient complained of torsional diplopia in upgaze. Extorsion was eliminated and head tilt improved in all patients.
CONCLUSIONS: Inferior oblique anterior and nasal transposition resulted in good long-term outcomes in our patients with superior oblique palsy presenting with hypertropia, inferior oblique overaction, and extorsion in primary gaze.

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DOI: 10.1016/j.jaapos.2017.05.026
PMID: 28713055

165: Sazawal S, Singh N, Jain S, Chhikara S, Chaubey R, Bhattacharyya J, Saikia KK, Mahapatra M, Saxena R. NPM1 and FLT3 mutations in acute myeloid leukemia with normal karyotype: Indian perspective. Indian J Pathol Microbiol. 2017 Jul-Sep;60(3):355-359. doi: 10.4103/IJPM.IJPM_501_15. PubMed PMID: 28937371.

BACKGROUND: FLT3-ITD and NPM1 mutations are considered to be the major determinants of the patient response to therapy and outcome. The primary aim of this study was to establish the correlation between these molecular mutations and the clinico-hematologic parameters as well as the prognostic outcome of the Indian acute myeloid leukemia (AML) patients.

MATERIALS AND METHODS: This prospective study involved newly diagnosed nonpromyelocytic AML patients who had undergone complete diagnostic workup, including immunophenotyping, conventional cytogenetics and molecular analysis for NPM1 and FLT3-ITD mutation by reverse transcriptase polymerase chain reaction at presentation.

RESULTS: Overall, the prevalence of NPM1 and FLT3-ITD mutations was found to be 14.4% and 10.8%, respectively. Among patients with normal karyotype, leukocytosis was significantly associated with NPM1+ group than the NPM1- group ($P = 0.0019$) and more severe degree of anemia was observed in the FLT3-ITD+ patients than the other groups ($P = 0.025$). No significant correlation was found in terms of age at presentation ($P = 0.56$), sex ratio ($P = 0.467$), median platelet count ($P = 0.27$), and blast percentage between NPM1+ and FLT3-ITD+ groups. Complete remission (CR) rates were better in the NPM1+/FLT3-ITD- group than the other three groups. Unlike most other studies, improved CR rates as well as disease-free survival were observed in the NPM-/FLT3-ITD- group than the FLT3-ITD+ groups although not reaching statistically significant levels.

CONCLUSION: Some differences in the clinical behavior of the Indian AML patients in comparison to that of the West in the presence of NPM1 and FLT3-ITD suggests that comprehensive studies are required to confirm the definitive role of these mutations among AML patients, especially with normal karyotype.

DOI: 10.4103/IJPM.IJPM_501_15
PMID: 28937371

166: Sebastian S, Dhawan B, Malhotra R, Gautam D, Kapil A. Salmonella typhimurium infection in total knee arthroplasty: A case report with review of literature. *J Lab Physicians*. 2017 Jul-Sep;9(3):217-219. doi: 10.4103/0974-2727.208254. PubMed PMID: 28706395; PubMed Central PMCID: PMC5496303.

Salmonella enterica serotype Typhimurium is a rare cause of prosthetic joint infection (PJI). The recognized predisposing risk factors for Salmonella septic arthritis include diabetes mellitus, renal failure, human immunodeficiency virus infection and chronic corticosteroid use. We describe a case of PJI of the knee in a 74-year-old lady who was on antitubercular treatment. The patient presented with discharging sinus and raised inflammatory markers. She was successfully treated by the removal of prosthesis and debridement followed by ciprofloxacin therapy for 6 weeks. This case report highlights the potential virulence of Salmonella in immunocompromised patient with a joint prosthesis. Continuous monitoring and close collaboration of microbiologists and orthopedicians helped obtain the resolution of infection in our patient.

DOI: 10.4103/0974-2727.208254
PMCID: PMC5496303
PMID: 28706395

Conflict of interest statement: There are no conflicts of interest.

167: Sebastian S, Malhotra R, Pande A, Gautam D, Xess I, Dhawan B. Staged Reimplantation of a Total Hip Prosthesis After Co-infection with *Candida tropicalis* and *Staphylococcus haemolyticus*: A Case Report. *Mycopathologia*. 2017 Jul 22. doi: 10.1007/s11046-017-0177-x. [Epub ahead of print] PubMed PMID:

28735470.

Fungal prosthetic joint infection is a rare complication in total joint arthroplasty. There are no established guidelines for management of these infections. We present a case of a 53-year-old male with a hip joint prosthesis co-infected with *Candida tropicalis* and *Staphylococcus haemolyticus*. A two-stage exchange arthroplasty was performed. The patient underwent implant removal, debridement, irrigation with saline solution and application of cement spacer impregnated with vancomycin followed by aggressive antimicrobial treatment in first stage. Complete eradication of infection was demonstrated by negative culture of sonicated cement spacer fluid and negative 16S rRNA and 18S rRNA gene PCR of sonicate fluid, synovial fluid and periprosthetic tissue samples. He underwent second-stage revision hip arthroplasty after 9 months of the first stage. At the latest follow-up, there was no evidence of recurrence of infection. This case illustrates the utility of sonication of biomaterials and molecular techniques for microbiological confirmation of absence of infection in staged surgeries which is required for a successful outcome.

DOI: 10.1007/s11046-017-0177-x

PMID: 28735470

168: Sehgal IS, Dhooria S, Madan K, Pattabhiraman V, Mehta R, Goyal R, Akkaraju J, Agarwal R. Placement of tracheobronchial silicone Y-stents: Multicenter experience and systematic review of the literature. *Lung India*. 2017 Jul-Aug;34(4):311-317. doi: 10.4103/0970-2113.209241. PubMed PMID: 28671160; PubMed Central PMCID: PMC5504886.

BACKGROUND: Airway obstruction or tracheoesophageal fistula (TEF) near the tracheal carina requires placement of Y-shaped stents. Herein, we describe our multicenter experience with the placement of Dumon silicone Y-stents. We also conduct a systematic review for studies describing the deployment of airway silicone Y-stents.

METHODS: This was a retrospective analysis of consecutive subjects who underwent placement of silicone Y-stents. The clinical details including the underlying diagnosis, indication for the placement of silicone Y-stents, success of stent placement, and follow-up are presented. The PubMed and EMBASE databases were also reviewed for studies describing the placement of silicone Y-stents.

RESULTS: During the study, 27 silicone Y-stents were placed. The mean (standard deviation) age of the study population (85.2% males) was 57.7 (13.5) years. The stents were placed for airway obstruction in 77.8% and TEF in 29.6% of the patients. The most common underlying disease was carcinoma of the esophagus. The degree of airway obstruction was grade 3-4 in 18 subjects, and respiratory failure was encountered in 18 subjects. The stent was deployed successfully in all the subjects. No deaths were encountered during stent placement. Most subjects had rapid relief of symptoms following the procedure. Excessive secretions and mucostasis were the most common stent-related complications followed by the development of granulation tissue. The systematic review yielded nine studies (338 subjects with airway obstruction and/or TEF). The most common indication for silicone Y-stent placement was tracheobronchial obstruction and TEF due to malignancy. Benign disorders that necessitated stent placement included postintubation tracheal stenosis, airway malacia, and others. The stent was successfully placed in 98% with only one periprocedural death. Granulation tissue formation and mucostasis were the most common stent-related complications. **CONCLUSION:** Placement of silicone Y-stent is a safe and effective procedure that provides quick relief of symptoms in subjects presenting with airway obstruction and TEF at or near the tracheal carina.

DOI: 10.4103/0970-2113.209241
PMCID: PMC5504886
PMID: 28671160

169: Sehgal R, Gulati S, Sapra S, Tripathi M, Pandey RM, Kabra M. Prognostic Utility of Clinical Epilepsy Severity Score Versus Pretreatment Hypsarrhythmia Scoring in Children With West Syndrome. Clin EEG Neurosci. 2017 Jul;48(4):280-287. doi: 10.1177/1550059416662425. Epub 2016 Aug 31. PubMed PMID: 27582501.

This cross-sectional study assessed the impact of clinical epilepsy severity and pretreatment hypsarrhythmia severity on epilepsy and cognitive outcomes in treated children with West syndrome. Thirty-three children, aged 1 to 5 years, with infantile spasms were enrolled if pretreatment EEG records were available, after completion of ≥ 1 year of onset of spasms. Neurodevelopment was assessed by Development Profile 3 and Gross Motor Function Classification System. Epilepsy severity in the past 1 year was determined by the Early Childhood Epilepsy Severity Score (E-Chess). Kramer Global Score of hypsarrhythmia severity was computed. Kramer Global Score (≤ 8) and E-Chess (≤ 9) in the past 1 year were associated with favorable epilepsy outcome but not neurodevelopmental or motor outcome.

DOI: 10.1177/1550059416662425
PMID: 27582501

170: Shah N. A Novel Conservative Approach Combining "SealBio" and "Surgical Fenestration" for Healing of Large Periapical Cystic Lesions of Endodontic Origin: A Pilot Study. Contemp Clin Dent. 2017 Jul-Sep;8(3):367-372. doi: 10.4103/ccd.ccd_1117_16. PubMed PMID: 29042719; PubMed Central PMCID: PMC5643991.

OBJECTIVES: To evaluate the treatment outcome of large periapical cystic lesions treated by combining two novel, conservative approaches, "SealBio" and "Surgical Fenestration".

MATERIALS AND METHODS: Five cases (4M:1F, age range 14-38 years, mean age 24.5 years) of large periapical cystic lesions, diagnosed on clinical and radiographic examination, were included in the study. After informed consent, endodontic treatment was initiated; chemo-mechanical preparation and intra-canal dressing of calcium hydroxide was given. At the next sitting after one week, further disinfection root canals was done by "apical clearing", "apical foramen widening" and irrigation. A cotton pellet was kept in the access cavity. After local anaesthesia, full thickness muco-periosteal flap was reflected and the thinned out bone was removed with bone rongers, a small piece of cystic lining was excised and the cystic cavity was copiously flushed with Betadine solution. The remaining cystic lining was gently curetted and the flap was sutured back. "SealBio" was performed after gentle irrigation with saline and intentional over instrumentation. A calcium sulphate based cement was pushed in the cervical third of the canal and the access opening was sealed with glass ionomer cement. Patient was prescribed antibiotics and anti-inflammatory drugs for 5 days and sutures were removed after 7 days. Patients were followed up clinically and radiographically at regular intervals.

CONCLUSIONS: In this pilot study, treatment outcome after combined technique of "SealBio" and "Surgical fenestration" was found to be highly effective in healing of large periapical cystic lesions. It was simple to perform and very conservative treatment; it required minimal bone removal, obviated the need for complete cyst enucleation, apicectomy and retrograde filling.

DOI: 10.4103/ccd.ccd_1117_16
PMCID: PMC5643991
PMID: 29042719

Conflict of interest statement: There are no conflicts of interest.

171: Shamim SA, Tripathy S, Mukherjee A, Bal C, Roy SG. 18-F-FDG PET-CT in Monitoring of Chemotherapeutic Effect in a Case of Metastatic Hepatic Epithelioid Hemangioendothelioma. *Indian J Nucl Med.* 2017 Jul-Sep;32(3):237-238. doi: 10.4103/ijnm.IJNM_171_16. PubMed PMID: 28680215; PubMed Central PMCID: PMC5482027.

Hepatic epithelioid hemangioendothelioma is a rare variant of mesenchymal tumor. Surgical resection or partial hepatectomy is the treatment of choice in the case of localized disease. However, in metastatic cases, chemotherapeutic drugs targeting the tyrosine kinase are being used. We hereby present 18-F-fludeoxyglucose positron emission tomography-computed tomography findings in a case of a 35-year old woman with metastatic HEHE showing significant response to Sorafenib therapy after 6 months.

DOI: 10.4103/ijnm.IJNM_171_16
PMCID: PMC5482027
PMID: 28680215

Conflict of interest statement: There are no conflicts of interest.

172: Sharma JB, Goyal M, Kumar S, Roy KK, Sharma E, Arora R. Concomitant female genital tuberculosis and endometriosis. *Indian J Tuberc.* 2017 Jul;64(3):173-177. doi: 10.1016/j.ijtb.2017.01.006. Epub 2017 Feb 22. PubMed PMID: 28709484.

AIMS: To demonstrate an association between female genital tuberculosis (FGTB) and endometriosis.

METHODS: A total of 16 women who underwent laparoscopy (12 cases) or laparotomy (4 cases) and were found to have female genital tuberculosis and endometriosis were enrolled in this retrospective study.

RESULTS: The mean age and parity were 28.2 years and 0.2, respectively. Past history of tuberculosis was present in 75% of the women (pulmonary in 50%). Menstrual dysfunction (especially oligomenorrhoea and dysmenorrhoea), constitutional symptoms, infertility, abdominal pain and lump were the main complaints. Diagnosis of FGTB was made by positive acid-fast bacilli (AFB) on microscopy, culture of endometrial aspirate, positive polymerase chain reaction (PCR), histopathological finding of epithelioid granuloma or findings of TB on laparoscopy or laparotomy. Diagnosis of endometriosis was made by laparoscopy or laparotomy. Pelvic adhesions were seen in all women, whereas frozen pelvis was seen in 7 (43.7%) women. Surgery was performed, which was laparoscopic adhesiolysis in 12 (75%), drainage of endometrioma in 12 (75%), cystectomy in 8 (50%), and total abdominal hysterectomy with bilateral salpingo-oophorectomy in 4 (25%) cases. With more than one type of (surgery in many cases).

DISCUSSION: Female genital tuberculosis and endometriosis may have similar manifestations and can co-exist.

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DOI: 10.1016/j.ijtb.2017.01.006
PMID: 28709484

173: Sharma P, Nakra T, Khanna G, Yadav R, Panwar R, Ks M, Khetan K, Dash NR, Pal

S, Sahni P, Datta Gupta S, Das P. Pancreatic heterotopia in wall of extra-hepatic choledochal cysts: A retrospective analysis of thirteen of such cases from north India. *Pathol Res Pract*. 2017 Sep;213(9):1109-1111. doi: 10.1016/j.prp.2017.07.018. Epub 2017 Jul 25. PubMed PMID: 28844549.

INTRODUCTION: Heterotopic pancreas (HP) has rarely been identified in the wall of choledochal cyst (CC).

METHODS: Retrospectively we screened 200 excised specimens of CC received at our Institute over a period of last eight years and looked for presence of HP rests in them. All the specimens were processed in their entirety.

RESULT: HP was identified in the wall of 13 (6.5%) CCs, out of which 11 were Heinrich Type 2, and two were Heinrich Type 1. In half of the cases peribiliary mucous glands were observed intermingled with the HP rests. Features of chronic fibrosing pancreatitis were identified in these rests, with ulceration of overlying cyst lining.

CONCLUSIONS: HP rests in the wall of CC though rare; their coexistence with peribiliary glands may possibly indicate their common embryonic origin. As a common site of inflammation, HP rest may be one of the common causes of CC.

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DOI: 10.1016/j.prp.2017.07.018

PMID: 28844549

174: Sharma R, Garg K, Rajeshwari M, Sharma MC, Kale SS. Solitary primary leptomeningeal astrocytoma - An extremely rare pathology. *Neurol India*. 2017 Jul-Aug;65(4):898-900. doi: 10.4103/neuroindia.NI_260_17. PubMed PMID: 28681779.

175: Sharma R, Garg K, Agarwal D, Garg A, Sharma MC, Sharma BS, Mahapatra AK. Isolated primary intradural extramedullary spinal cysticercosis. *Neurol India*. 2017 Jul-Aug;65(4):882-884. doi: 10.4103/neuroindia.NI_98_17. PubMed PMID: 28681771.

176: Sharma SC, Devaraja K, Kairo A, Kumar R. Percutaneous Trans-Tracheal Endoscopic Approach: A Novel Technique for the Excision of Benign Lesions of Thoracic Trachea. *J Laparoendosc Adv Surg Tech A*. 2017 Jul 19. doi: 10.1089/lap.2017.0224. [Epub ahead of print] PubMed PMID: 28723308.

INTRODUCTION: Currently, neoplasms of the trachea and lower airway demand open transcervical approach with or without thoracotomy. We describe here a novel, minimally invasive approach for an intraluminal lesion of the thoracic trachea, called percutaneous trans-tracheal endoscopic approach (PTEA). Apart from obvious advantages over potentially morbid open procedures, this technique has certain peculiar benefits over rigid or flexible bronchoscopic approach.

MATERIALS AND METHODS: A 43-year-old male patient had glomus tumor of thoracic trachea. After detailed workup and informed written consent, he was taken up for percutaneous trans-tracheal excision under general anesthesia. The foremost step of the procedure is awake fiberoptic guided intubation, using the microlaryngeal tracheal tube, followed by elective tracheotomy. Subsequently, the lower end of the microlaryngeal tube was carefully pushed further inside the trachea so that the cuff of the tube lies distal to the tumor. The cuff is then inflated so that the operating area is sealed off from lower airway to aid continuous inhalational anesthesia and to prevent aspiration of blood. The surgeon sitting at the head end removed the tumor through tracheotomy under endoscopic guidance. After

achieving absolute hemostasis, neck wound was closed.

RESULTS: Patient had complete removal of the tumor without any aspiration intraoperatively or in the postoperative period. The anesthetic agent could be delivered uninterrupted through the secured airway, below the operative area separated by sealed cuff of the microlaryngeal tube.

CONCLUSIONS: For excision of benign luminal lesions of the lower trachea, the novel approach of PTEA has many distinct and fool proof advantages in comparison to the transoral laryngoscopic/bronchoscopic and the transcervical approaches.

DOI: 10.1089/lap.2017.0224

PMID: 28723308

177: Shergill S, Makharia GK. Awareness about celiac disease amongst physicians. *Indian J Gastroenterol.* 2017 Jul;36(4):327-329. doi: 10.1007/s12664-017-0769-x. PubMed PMID: 28741236.

178: ---

179: Shi T, McAllister DA, O'Brien KL, Simoes EAF, Madhi SA, Gessner BD, Polack FP, Balsells E, Acacio S, Aguayo C, Alassani I, Ali A, Antonio M, Awasthi S, Awori JO, Azziz-Baumgartner E, Baggett HC, Baillie VL, Balmaseda A, Barahona A, Basnet S, Bassat Q, Basualdo W, Bigogo G, Bont L, Breiman RF, Brooks WA, Broor S, Bruce N, Bruden D, Buchy P, Campbell S, Carosone-Link P, Chadha M, Chipeta J, Chou M, Clara W, Cohen C, de Cuellar E, Dang DA, Dash-Yandag B, Deloria-Knoll M, Dherani M, Eap T, Ebruke BE, Echavarria M, de Freitas L; zaro Emediato CC, Fasce RA, Feikin DR, Feng L, Gentile A, Gordon A, Goswami D, Goyet S, Groome M, Halasa N, Hirve S, Homaira N, Howie SRC, Jara J, Jroundi I, Kartasasmita CB, Khuri-Bulos N, Kotloff KL, Krishnan A, Libster R, Lopez O, Lucero MG, Lucion F, Lupisan SP, Marccone DN, McCracken JP, Mejia M, Moisi JC, Montgomery JM, Moore DP, Moraleda C, Moyes J, Munywoki P, Mutyara K, Nicol MP, Nokes DJ, Nymadawa P, da Costa Oliveira MT, Oshitani H, Pandey N, Paranhos-Baccalã G, Phillips LN, Picot VS, Rahman M, Rakoto-Andrianarivelo M, Rasmussen ZA, Rath BA, Robinson A, Romero C, Russomando G, Salimi V, Sawatwong P, Scheltema N, Schweiger B, Scott JAG, Seidenberg P, Shen K, Singleton R, Sotomayor V, Strand TA, Sutanto A, Sylla M, Tapia MD, Thamthitawat S, Thomas ED, Tokarz R, Turner C, Venter M, Waicharoen S, Wang J, Watthanaworawit W, Yoshida LM, Yu H, Zar HJ, Campbell H, Nair H; RSV Global Epidemiology Network. Global, regional, and national disease burden estimates of acute lower respiratory infections due to respiratory syncytial virus in young children in 2015: a systematic review and modelling study. *Lancet.* 2017 Sep 2;390(10098):946-958. doi: 10.1016/S0140-6736(17)30938-8. Epub 2017 Jul 7. PubMed PMID: 28689664; PubMed Central PMCID: PMC5592248.

BACKGROUND: We have previously estimated that respiratory syncytial virus (RSV) was associated with 22% of all episodes of (severe) acute lower respiratory infection (ALRI) resulting in 55 000 to 199 000 deaths in children younger than 5 years in 2005. In the past 5 years, major research activity on RSV has yielded substantial new data from developing countries. With a considerably expanded dataset from a large international collaboration, we aimed to estimate the global incidence, hospital admission rate, and mortality from RSV-ALRI episodes in young children in 2015.

METHODS: We estimated the incidence and hospital admission rate of RSV-associated ALRI (RSV-ALRI) in children younger than 5 years stratified by age and World Bank income regions from a systematic review of studies published between Jan 1, 1995, and Dec 31, 2016, and unpublished data from 76 high quality population-based

studies. We estimated the RSV-ALRI incidence for 132 developing countries using a risk factor-based model and 2015 population estimates. We estimated the in-hospital RSV-ALRI mortality by combining in-hospital case fatality ratios with hospital admission estimates from hospital-based (published and unpublished) studies. We also estimated overall RSV-ALRI mortality by identifying studies reporting monthly data for ALRI mortality in the community and RSV activity. FINDINGS: We estimated that globally in 2015, 33.1 million (uncertainty range [UR] 21.6-50.3) episodes of RSV-ALRI, resulted in about 3.2 million (2.7-3.8) hospital admissions, and 59 600 (48 000-74 500) in-hospital deaths in children younger than 5 years. In children younger than 6 months, 1.4 million (UR 1.2-1.7) hospital admissions, and 27 300 (UR 20 700-36 200) in-hospital deaths were due to RSV-ALRI. We also estimated that the overall RSV-ALRI mortality could be as high as 118 200 (UR 94 600-149 400). Incidence and mortality varied substantially from year to year in any given population.

INTERPRETATION: Globally, RSV is a common cause of childhood ALRI and a major cause of hospital admissions in young children, resulting in a substantial burden on health-care services. About 45% of hospital admissions and in-hospital deaths due to RSV-ALRI occur in children younger than 6 months. An effective maternal RSV vaccine or monoclonal antibody could have a substantial effect on disease burden in this age group.

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PMID: 28689664

180: Sikka V, Gautam V, Galwankar S, Guleria R, Stawicki SP, Paladino L, Chauhan V, Menon G, Shah V, Srivastava RP, Rana BK, Batra B, Kalra OP, Aggarwal P, Bhoi S, Krishnan SV. The 2017 International Joint Working Group White Paper by INDUSEM, the Emergency Medicine Association and the Academic College of Emergency Experts on Establishing Standardized Regulations, Operational Mechanisms, and Accreditation Pathways for Education and Care Provided by the Prehospital Emergency Medical Service Systems in India. *J Emerg Trauma Shock*. 2017 Jul-Sep;10(3):154-161. doi: 10.4103/JETS.JETS_7_17. PubMed PMID: 28855780; PubMed Central PMCID: PMC5566029.

The government of India has done remarkable work on commissioning a government funded prehospital emergency ambulance service in India. This has both public health implications and an economic impact on the nation. With the establishment of these services, there is an acute need for standardization of education and quality assurance regarding prehospital care provided. The International Joint Working Group has been actively involved in designing guidelines and establishing a comprehensive framework for ensuring high-quality education and clinical standards of care for prehospital services in India. This paper provides an independent expert opinion and a proposed framework for general operations and administration of a standardized, national prehospital emergency medical systems program. Program implementation, operational details, and regulations will require close collaboration between key stakeholders, including local, regional, and national governmental agencies of India.

DOI: 10.4103/JETS.JETS_7_17
PMCID: PMC5566029
PMID: 28855780

Conflict of interest statement: There are no conflicts of interest.

181: Singh A, Kumar P, Chandrashekhara SH, Kumar A. Unravelling chloroma: review of imaging findings. *Br J Radiol*. 2017 Jul;90(1075):20160710. doi: 10.1259/bjr.20160710. Epub 2017 May 23. Review. PubMed PMID: 28445074; PubMed Central PMCID: PMC5594979.

Chloroma refers to the extramedullary proliferation of immature myeloid precursors occurring in a gamut of myeloproliferative and myelodysplastic conditions; acute myeloid leukaemia being the commonest. With non-specific clinical and imaging manifestations, it runs a high risk of misdiagnosis which may significantly affect the outcome of an otherwise treatable lesion. Also with these lesions heralding impending blast crises, awareness of the imaging findings becomes imperative. Imaging not only helps raise the suspicion but also guides further confirmation by demonstration of specific immunohistochemistry markers, ensuring timely institution of chemotherapy. In general, solid enhancing lesions in any haematological disorder could be chloromas, especially if multifocal with mass effect.

DOI: 10.1259/bjr.20160710
PMCID: PMC5594979 [Available on 2018-07-01]
PMID: 28445074 [Indexed for MEDLINE]

182: Singh J, Garg K, Sharma R, Sinha S, Kale SS. Damage control surgery in intracerebral hemorrhage in acute leukemia: a review of two cases. *Childs Nerv Syst*. 2017 Jul;33(7):1229-1232. doi: 10.1007/s00381-017-3401-6. Epub 2017 Apr 3. PubMed PMID: 28374115.

INTRODUCTION: Intracerebral hemorrhage is the second most common cause of mortality (after infections) in acute leukemia and is responsible for approximately 20% of deaths due to acute leukemia. Management of intracerebral hemorrhage (ICH) is mostly conservative but there exist certain patients who need emergent surgery due to the poor Glasgow Coma Scale (GCS) despite their coagulopathic state.

CASE REPORT: We present here two such cases which were successfully managed with decompressive craniectomy which was done as a damage control surgery thus stating the importance of surgical intervention in the management of acutely deteriorating patients rather than the commonly employed conservative management due to their coagulopathic state.

DOI: 10.1007/s00381-017-3401-6
PMID: 28374115

183: Singh M. Fractionated gamma knife radiosurgery for large brain arteriovenous malformations. *Neurol India*. 2017 Jul-Aug;65(4):701-702. doi: 10.4103/neuroindia.NI_519_17. PubMed PMID: 28681734.

184: Singh N, Pati HP, Tyagi S, Upadhyay AD, Saxena R. Evaluation of the Diagnostic Performance of Fibrin Monomer in Comparison to d-Dimer in Patients With Overt and Nonovert Disseminated Intravascular Coagulation. *Clin Appl Thromb Hemost*. 2017 Jul;23(5):460-465. doi: 10.1177/1076029615615959. Epub 2015 Nov 15. PubMed PMID: 26574574.

INTRODUCTION: Disseminated intravascular coagulation (DIC) is a thrombohemorrhagic disorder characterized by hyperactivation of coagulation and

secondary fibrinolysis.

AIM: The primary aim of this prospective study was to evaluate and compare the diagnostic performance of fibrin monomer (FM) and d-dimer (DD) for the preemptive diagnosis of DIC in the early stages.

MATERIALS AND METHODS: The patients were categorized into 3 groups: overt DIC, nonovert DIC, and non-DIC based on the International Society of Thrombosis and Hemostasis scoring for overt DIC and the modified nonovert-DIC criteria. Coagulation tests were performed on freshly obtained plasma. Quantitative determination of FM and DD was done by immunoturbidimetric assay.

RESULTS: Median DD and FM levels in patients with overt DIC were significantly higher in comparison to the other 2 groups. Interestingly, unlike DD, the difference in FM levels was also found to be statistically significant between patients with nonovert DIC and non-DIC patients ($P = .0001$). At receiver-operator characteristic curve-generated cutoff values, FM had higher specificity and negative predictive value than DD for predicting onset of overt DIC. Multivariate analysis showed that only FM was as an independent predictive factor useful in differentiating patients with overt DIC from non-DIC patients (odds ratio [OR]: 43.3; confidence interval [CI] 4.61-406.68; P value = .001) as well as in distinguishing nonovert DIC from non-DIC patients (OR:18.3; CI 3.45-97.19; P value = .001).

CONCLUSION: Fibrin monomer is a better indicator than DD in distinguishing patients with overt and nonovert DIC from non-DIC patients, raising the possibility for its diagnostic utility as a marker for impending overt DIC, aiding in early diagnosis and prompt therapeutic intervention.

DOI: 10.1177/1076029615615959

PMID: 26574574

185: Singh S, Gupta A, Sarkar S. Mephentermine Dependence in a Young Athlete: Case Report With Review of Literature. *J Addict Med*. 2017 Jul/Aug;11(4):328-330. doi: 10.1097/ADM.0000000000000313. PubMed PMID: 28574863.

: Mephentermine is structurally related to amphetamines and is banned for its use as a performance-enhancing drug in competitive sports. Limited literature is available on management of mephentermine dependence. Here, we describe a case of mephentermine dependence followed by review of literature and a discussion about its management. A 20-year-old professional wrestler presented with high-dose intravenous mephentermine use, and rapid development of dependence, in the absence of any comorbid substance use or psychiatric disorder. The client showed improvement with bupropion and individual counseling sessions. The present report highlights the need to explore effective treatment options for individuals who have been addicted to mephentermine.

DOI: 10.1097/ADM.0000000000000313

PMID: 28574863

186: Singla R, Sharma R, Mishra S, Prabhakar H. Contralateral brachial plexus injury following retromastoid suboccipital craniotomy: A report and review of literature. *Neurol India*. 2017 Jul-Aug;65(4):864-866. doi: 10.4103/neuroindia.NI_264_17. PubMed PMID: 28681763.

187: Sinha A, Gupta A, Kalaivani M, Hari P, Dinda AK, Bagga A. Mycophenolate mofetil is inferior to tacrolimus in sustaining remission in children with idiopathic steroid-resistant nephrotic syndrome. *Kidney Int*. 2017 Jul;92(1):248-257. doi: 10.1016/j.kint.2017.01.019. Epub 2017 Mar 18. PubMed PMID: 28318625.

Studies of nephrotic syndrome show that substitution of calcineurin inhibitors by mycophenolate mofetil (MMF) enables sustained remission and corticosteroid sparing and avoids therapy associated adverse effects. However, controlled studies in patients with steroid resistance are lacking. Here we examined the effect of switching from therapy with tacrolimus to MMF on disease course in an open-label, one-to-one randomized, controlled trial on children (one to 18 years old), recently diagnosed with steroid-resistant nephrotic syndrome, at a referral center in India. Following six months of therapy with tacrolimus, patients with complete or partial remission were randomly assigned such that 29 received MMF while 31 received tacrolimus along with tapering prednisolone on alternate days for 12 months. On intention-to-treat analyses, the proportion of patients with a favorable outcome (sustained remission, infrequent relapses) at one year was significantly lower (44.8%) in the MMF group than in the tacrolimus group (90.3%). The incidence of relapses was significantly higher for patients treated with MMF than tacrolimus (mean difference: 1.05 relapses per person-year). While there was no difference in the proportion of patients with sustained remission, the risk of recurrence of steroid resistance was significantly higher for patients receiving MMF compared to tacrolimus (mean difference: 20.7%). Compared to tacrolimus, patients receiving MMF had a significantly (71%) lower likelihood of a favorable outcome and significantly increased risk of treatment failure (frequent relapses, steroid resistance). Thus, replacing tacrolimus with MMF after six months of tacrolimus therapy for steroid-resistant nephrotic syndrome in children is associated with significant risk of frequent relapses or recurrence of resistance. These findings have implications for guiding the duration of therapy with tacrolimus for steroid-resistant nephrotic syndrome.

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DOI: 10.1016/j.kint.2017.01.019
PMID: 28318625

188: Sirohi HV, Singh PK, Iqbal N, Sharma P, Singh AK, Kaur P, Sharma S, Singh TP. Design of anti-thyroid drugs: Binding studies and structure determination of the complex of lactoperoxidase with 2-mercaptoimidazole at 2.30 Å resolution. *Proteins*. 2017 Oct;85(10):1882-1890. doi: 10.1002/prot.25342. Epub 2017 Jul 21. PubMed PMID: 28653416.

Lactoperoxidase (LPO) belongs to mammalian heme peroxidase superfamily, which also includes myeloperoxidase (MPO), eosinophil peroxidase (EPO), and thyroid peroxidase (TPO). LPO catalyzes the oxidation of a number of substrates including thiocyanate while TPO catalyzes the biosynthesis of thyroid hormones. LPO is also been shown to catalyze the biosynthesis of thyroid hormones indicating similar functional and structural properties. The binding studies showed that 2-mercaptoimidazole (MZY) bound to LPO with a dissociation constant of 0.63 μM . The inhibition studies showed that the value of IC_{50} was 17 μM . The crystal structure of the complex of LPO with MZY showed that MZY bound to LPO in the substrate-binding site on the distal heme side. MZY was oriented in the substrate-binding site in such a way that the sulfur atom is at a distance of 2.58 Å from the heme iron. Previously, a similar compound, 3-amino-1,2,4-triazole (amitrole) was also shown to bind to LPO in the substrate-binding site on the distal heme side. The amino nitrogen atom of amitrole occupied the same position as that of sulfur atom in the present structure indicating a similar mode of binding. Recently, the structure of the complex of LPO with a potent antithyroid drug, 1-methylimidazole-2-thiol (methimazole, MMZ) was also determined. It showed that MMZ bound to LPO in the substrate-binding site on the distal heme side with

2 orientations. The position of methyl group was same in the 2 orientations while the positions of sulfur atom differed indicating a higher preference for a methyl group.

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PMID: 28653416 [Indexed for MEDLINE]

189: Sonny A, Sessler DI, You J, Kashy BK, Sarwar S, Singh AK, Sale S, Alfirevic A, Duncan AE. The response to Trendelenburg position is minimally affected by underlying hemodynamic conditions in patients with aortic stenosis. *J Anesth.* 2017 Oct;31(5):692-702. doi: 10.1007/s00540-017-2384-5. Epub 2017 Jul 13. PubMed PMID: 28707021.

PURPOSE: Trendelenburg positioning is commonly used to temporarily treat intraoperative hypotension. The Trendelenburg position improves cardiac output in normovolemic or anesthetized patients, but not hypovolemic or non-anesthetized patients. Therefore, the response to Trendelenburg positioning may vary depending on patient population or hemodynamic conditions. We thus tested the hypothesis that the effectiveness of the Trendelenburg position, as indicated by an increase in cardiac output, improves after replacement of a stenotic aortic valve. Secondly, we evaluated whether measurements of left ventricular preload, systolic function, or afterload were associated with the response to Trendelenburg positioning.

METHODS: This study is a secondary analysis of a clinical trial which included patients having aortic valve replacement (AVR) who were monitored with pulmonary artery catheters (NCT01187329). We examined changes in thermodilution cardiac output with Trendelenburg positioning before and after AVR. We also examined whether echocardiographic and hemodynamic measurements of preload, afterload, and systolic function were associated with changes in cardiac output during Trendelenburg positioning.

RESULTS: Thirty-seven patients were included. The median [IQR] cardiac output change with Trendelenburg positioning was -3% [-10%, 5%] before AVR versus +4% [-4%, 15%] after AVR. Estimated median difference in cardiac output with Trendelenburg was 5% (95% CI 1, 15%, $P = 0.04$) greater after AVR. The response to Trendelenburg positioning was largely independent of hemodynamic conditions.

CONCLUSION: The response to Trendelenburg positioning improved following AVR, but by a clinically unimportant amount. The response to Trendelenburg positioning was independent of hemodynamic conditions.

DOI: 10.1007/s00540-017-2384-5

PMID: 28707021

190: Srivastava A, Suhani. Mammographic Screening or Breast Cancer Awareness? Time to Ponder. *Indian J Surg.* 2017 Oct;79(5):446-449. doi: 10.1007/s12262-017-1672-5. Epub 2017 Jul 11. Review. PubMed PMID: 29089707; PubMed Central PMCID: PMC5653586.

Breast cancer in India is becoming the leading cause of cancer-related mortality in urban women. In developed countries, the mortality from breast cancer has decreased in the past few years attributable to better awareness of disease, screening programs, early detection and more effective treatment available. Although widely used, the screening programs running in the western countries have been a point of criticism in the recent years as they lead to increased healthcare cost and detection of otherwise benign and clinically insignificant breast lesion (both benign and malignant). Also in a developing country like ours

where the awareness about breast cancer among the ladies is itself poor, whether screening is feasible and cost-effective is a matter of ongoing debate. We conducted this literature review to ascertain the importance of breast cancer awareness, breast self-examination, and clinical breast examination as effective screening tools in a resource deficient country like India.

DOI: 10.1007/s12262-017-1672-5

PMCID: PMC5653586 [Available on 2018-10-01]

PMID: 29089707

191: Steinkellner H, Singh HN, Muckenthaler MU, Goldenberg H, Moganty RR, Scheiber-Mojdehkar B, Sturm B. No changes in heme synthesis in human Friedreich's

ataxia erythroid progenitor cells. *Gene*. 2017 Jul 20;621:5-11. doi:

10.1016/j.gene.2017.04.014. Epub 2017 Apr 12. PubMed PMID: 28412459.

Friedreich's ataxia (FRDA) is a neurodegenerative disease caused by reduced expression of the protein frataxin. Frataxin is thought to play a role in iron-sulfur cluster biogenesis and heme synthesis. In this study, we used erythroid progenitor stem cells obtained from FRDA patients and healthy donors to investigate the putative role, if any, of frataxin deficiency in heme synthesis. We used electrochemiluminescence and qRT-PCR for frataxin protein and mRNA quantification. We used atomic absorption spectrophotometry for iron levels and a photometric assay for hemoglobin levels. Protoporphyrin IX and Ferrochelatase were analyzed using auto-fluorescence. An "IronChip" microarray analysis followed by a protein-protein interaction analysis was performed. FRDA patient cells showed no significant changes in iron levels, hemoglobin synthesis, protoporphyrin IX levels, and ferrochelatase activity. Microarray analysis presented 11 genes that were significantly changed in all patients compared to controls. The genes are especially involved in oxidative stress, iron homeostasis and angiogenesis. The mystery about the involvement of frataxin on iron metabolism raises the question why frataxin deficiency in primary FRDA cells did not lead to changes in biochemical parameters of heme synthesis. It seems that alternative pathways can circumvent the impact of frataxin deficiency on heme synthesis. We show for the first time in primary FRDA patient cells that reduced frataxin levels are still sufficient for heme synthesis and possibly other mechanisms can overcome reduced frataxin levels in this process. Our data strongly support the fact that so far no anemia in FRDA patients was reported.

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DOI: 10.1016/j.gene.2017.04.014

PMID: 28412459 [Indexed for MEDLINE]

192: Sundberg F, Barnard K, Cato A, de Beaufort C, DiMeglio LA, Dooley G, Hershey T, Hitchcock J, Jain V, Weissberg-Benchell J, Rami-Merhar B, Smart CE, Hanas R. ISPAD Guidelines. Managing diabetes in preschool children. *Pediatr Diabetes*. 2017 Nov;18(7):499-517. doi: 10.1111/pedi.12554. Epub 2017 Jul 20. PubMed PMID: 28726299.

193: Taichman DB, Sahni P, Pinborg A, Peiperl L, Laine C, James A, Hong ST, Haileamlak A, Gollogly L, Godlee F, Frizelle FA, Florenzano F, Drazen JM, Bauchner H, Baethge C, Backus J. Data sharing statements for clinical trials: a requirement of the International Committee of Medical Journal Editors. *Bull World Health Organ*. 2017 Jul 1;95(7):482-483. doi: 10.2471/BLT.17.196733. PubMed PMID: 28670009; PubMed Central PMCID: PMC5487980.

194: Takkar B, Bansal P, Venkatesh P. Leber's Congenital Amaurosis and Gene Therapy. *Indian J Pediatr*. 2017 Jul 7. doi: 10.1007/s12098-017-2394-1. [Epub ahead of print] PubMed PMID: 28685406.

Retinal blindness is an important cause of pediatric visual loss. Leber's congenital amaurosis (LCA) is one of these causes, often wrongly included in the spectrum of retinitis pigmentosa. The disease has become the center of research after initial reports of success in management with gene therapy. This review discusses in brief the clinical presentation and investigative modalities used in LCA. Further, the road to gene discovery and details of currently applied gene therapy are presented. LCA is one of the first successfully managed human diseases and offers an entirely new dimension in ocular therapeutics.

DOI: 10.1007/s12098-017-2394-1
PMID: 28685406

195: Talwar S, Singh S, Sreenivas V, Kapoor KS, Gupta SK, Ramakrishnan S, Kothari SS, Saxena A, Juneja R, Choudhary SK, Airan B. Outcomes of Patients Undergoing Primary Fontan Operation Beyond First Decade of Life. *World J Pediatr Congenit Heart Surg*. 2017 Jul;8(4):487-494. doi: 10.1177/2150135117713696. PubMed PMID: 28696879.

OBJECTIVES: Studies on older patients undergoing primary Fontan operation (FO) are limited, with conflicting results. We review our experience with these patients beyond the first decade of life.

PATIENTS AND METHODS: Between January 2000 and December 2014, a total of 105 patients ≥ 10 years of age (mean 15.6 ± 4.9 , range 10-31, median 15 years) underwent primary FO without a prior bidirectional superior cavopulmonary anastomosis (Bidirectional Glenn [BDG]). Mean preoperative New York Heart Association (NYHA) class was 2.2 ± 0.57 .

RESULTS: Operative procedure was extra-cardiac FO in 62 patients (8 were fenestrated). Forty-three had a lateral tunnel FO (26 were fenestrated). There were 11 (10.5%) early deaths. Fourteen of the 94 early survivors experienced prolonged pleural effusions, 7 had arrhythmias, and 2 had thromboembolic events. Two patients underwent Fontan takedown. On univariate analysis, NYHA functional class III, mean pulmonary artery (PA) pressure ≥ 15 mm Hg, hematocrit $\geq 60\%$, preoperative ventricular dysfunction, and atrioventricular valve regurgitation (AVVR) were associated with early mortality. Median follow-up was 78 (mean 88.9 ± 6.3) months. In 94 survivors, 6 (6.4%) late deaths were encountered. At last follow-up, 81 (86.2%) survivors were in NYHA class I. Actuarial survival was $84.7\% \pm 3.7\%$ at 5, 10, and 15 years.

CONCLUSION: Carefully selected adolescents and young adults can safely undergo the primary FO. However, persistent pleural effusions, arrhythmias, thromboembolic events, and the need for reoperation mandate regular follow-up in such patients. Preoperative NYHA functional class III, mean PA pressure ≥ 15 mm Hg, hematocrit $\geq 60\%$, ventricular dysfunction, and AVVR were associated with early mortality, suggesting that primary FO should be avoided in such patients.

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PMID: 28696879 [Indexed for MEDLINE]

196: Talwar S, Anand A, Gupta SK, Ramakrishnan S, Kothari SS, Saxena A, Juneja R, Choudhary SK, Airan B. Resection of subaortic membrane for discrete subaortic stenosis. *J Card Surg*. 2017 Jul;32(7):430-435. doi: 10.1111/jocs.13160. Epub 2017 Jun 13. PubMed PMID: 28609808.

BACKGROUND: We reviewed the long-term results of surgery for discrete subaortic membrane (SubAM) from a single institute.

METHODS: A retrospective review of medical records of all patients (n=146) who underwent resection of a SubAM for discrete subaortic stenosis between 1990 and 2015 at the All India Institute of Medical Sciences, New Delhi, India was undertaken.

RESULTS: Median age at surgery was 9.0 years (9 months-47 years). There was one early death. Preoperative peak left ventricular outflow tract (LVOT) Doppler gradient was 83.4 ± 26.2 mmHg (range: 34-169 mmHg). On preoperative echocardiography, aortic regurgitation (AR) was absent in 69 (47.3%), mild in 35 (24%), moderate in 30 (20.5%), and severe in 12 (8.2%). After surgery, the LVOT gradient was reduced to 15.1 ± 6.2 mmHg ($P < 0.001$). Fourteen patients (9.6%) who had residual/recurrent significant gradients are currently being followed-up or awaiting surgery. There was improvement in AR for operated patients with freedom from AR of $92.6 \pm 0.03\%$ at 15 years. Kaplan-Meier survival at 25 years was $93.0 \pm 3.9\%$ (95% confidence interval: 79.6, 97.7). Freedom from re-operation at 25 years was $96.9 \pm 1.8\%$.

CONCLUSIONS: Long-term results of surgery for discrete SubAM are good. Resection of the membrane along with septal myectomy decreases the risk of recurrence.

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DOI: 10.1111/jocs.13160

PMID: 28609808 [Indexed for MEDLINE]

197: Tandon N, Kalra S, Balhara YPS, Baruah MP, Chadha M, Chandalia HB, Prasanna Kumar KM, Madhu SV, Mithal A, Sahay R, Shukla R, Sundaram A, Unnikrishnan AG, Saboo B, Gupta V, Chowdhury S, Kesavadev J, Wangnoo SK. Forum for Injection Technique and Therapy Expert Recommendations, India: The Indian Recommendations for Best Practice in Insulin Injection Technique, 2017. *Indian J Endocrinol Metab.* 2017 Jul-Aug;21(4):600-617. doi: 10.4103/ijem.IJEM_97_17. Review. PubMed PMID: 28670547; PubMed Central PMCID: PMC5477451.

Health-care professionals in India frequently manage injection or infusion therapies in persons with diabetes (PWD). Patients taking insulin should know the importance of proper needle size, correct injection process, complication avoidance, and all other aspects of injection technique from the first visit onward. To assist health-care practitioners in their clinical practice, Forum for Injection Technique and Therapy Expert Recommendations, India, has updated the practical advice and made it more comprehensive evidence-based best practice information. Adherence to these updated recommendations, learning, and translating them into clinical practice should lead to effective therapies, improved outcomes, and lower costs for PWD.

DOI: 10.4103/ijem.IJEM_97_17

PMCID: PMC5477451

PMID: 28670547

Conflict of interest statement: There are no conflicts of interest.

198: Tandon PN. The enigma of neuroinflammation. *Neurol India.* 2017 Jul-Aug;65(4):703-705. doi: 10.4103/neuroindia.NI_517_17. PubMed PMID: 28681735.

199: Temkar S, Mukhija R, Venkatesh P, Chawla R. Pseudo retinitis pigmentosa in a

case of missed intraocular foreign body. *BMJ Case Rep.* 2017 Jul 31;2017. pii: bcr-2017-220385. doi: 10.1136/bcr-2017-220385. PubMed PMID: 28765492.

A 35-year-old man presented with history of painless, progressive loss of vision in the left eye for the past 7 years. There was history of trauma to the same eye with an iron object 7 years prior. Fundus examination revealed pigmentary retinopathy (unilateral advanced retinitis pigmentosa (RP)-like picture). X-ray orbits were suspicious of retained intraocular foreign body (IOFB). CT orbits confirmed the presence of IOFB. Electroretinogram revealed depressed responses. Right eye examination was within normal limits. A diagnosis of siderosis bulbi with unilateral pseudo RP-like fundus was made. No surgical intervention was planned for IOFB in view of poor visual prognosis.

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Conflict of interest statement: Competing interests: None declared.

200: Tiwari V, Sampath Kumar V, Poudel RR, Kumar A, Khan SA. Pes Anserinus Bursitis due to Tibial Spurs in Children. *Cureus.* 2017 Jul 5;9(7):e1427. doi: 10.7759/cureus.1427. PubMed PMID: 28884053; PubMed Central PMCID: PMC5585000.

Osteochondromas are the most common bone tumours. Although these tumors are relatively common in the long bones of children, the varied clinical and radiographic presentation of such neoplasms around the knee joint can cause diagnostic delays, especially when not associated with a palpable swelling. Proximal tibial osteochondromas can sometimes unusually present as spurs/ rose thorns leading to pes anserinus bursitis and vague knee pain. We describe the clinico-radiographic features of such proximal tibial metaphyseal osteochondromas giving rise to pes anserinus bursitis in three children, including bilaterally symmetrical osteochondroma in one of the cases, who were treated conservatively with good outcomes.

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Conflict of interest statement: The authors have declared that no competing interests exist.

201: Tripathy K, Kumawat B, Chawla R, Sharma YR, Bypareddy R. Acute Vision Loss Due to Central Retinal Arterial Occlusion, Partial Optic Nerve Avulsion, and Hemorrhage "Spurting Out" from Optic Disc after Blunt Trauma. *J Ophthalmic Vis Res.* 2017 Jul-Sep;12(3):351-352. doi: 10.4103/jovr.jovr_4_15. PubMed PMID: 28791073; PubMed Central PMCID: PMC5525509.

202: Tripathy K, Chawla R. Extensive commotio retinae involving peripheral retina. *Natl Med J India.* 2017 Jul-Aug;30(4):242. doi: 10.4103/0970-258X.218686. PubMed PMID: 29162764.

203: Tripathy S, Mukherjee A, Singh CA, Jat B, Bal C, Shamim SA. Glomus Tumor of

the Larynx: A Rare Synchronous Paraganglioma in a Patient with Bilateral Carotid Body Tumor Detected on (68)Ga-DOTANOC PET/CT. *Indian J Nucl Med.* 2017 Jul-Sep;32(3):241-242. doi: 10.4103/ijnm.IJNM_163_16. PubMed PMID: 28680217; PubMed Central PMCID: PMC5482029.

Paragangliomas are neoplasms arising from extra-adrenal chromaffin tissue. They frequently cause symptoms by overproduction of catecholamines with known predilection to multicentricity. We describe the case of a patient with bilateral carotid body tumor who underwent a baseline 68 Gallium labeled [1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid]-1-NaI3-Octreotide.

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PMCID: PMC5482029
PMID: 28680217

Conflict of interest statement: The authors declare no conflicts of interest.

204: Vallonithaiel AG, Malik PS, Singh V, Kumar V, Kumar S, Sharma MC, Mathur S, Arava S, Guleria R, Jain D. Clinicopathologic correlation of programmed death ligand-1 expression in non-small cell lung carcinomas: A report from India. *Ann Diagn Pathol.* 2017 Dec;31:56-61. doi: 10.1016/j.anndiagpath.2017.07.001. Epub 2017 Jul 14. PubMed PMID: 29146060.

INTRODUCTION: Increased expression of Programmed death ligand-1 (PD-L1) on cancer cells and immune cells predict response to PD-1/PDL1 inhibitors. Data regarding frequency and pattern of PD-L1 expression in NSCLC from India is not available.

OBJECTIVES: To analyse PD-L1 expression on tumour cells (TC) and immune cells (IC) and to correlate PD-L1 expression with baseline clinico-pathological characteristics, oncogenic drivers and outcome data.

MATERIALS AND METHODS: PD-L1 expression on tumour cells and immune cells was analysed.

RESULTS: Eighty-nine cases of resected NSCLC were included. Squamous cell carcinoma was more common than adenocarcinoma. IC were present in almost all cases. Immunopositivity for PD-L1 in TC and IC was 27% and 18% respectively. PD-L1 immunopositivity in TC or IC did not correlate with age, sex, stage or mutation status however sarcomatoid carcinoma and solid predominant adenocarcinomas showed higher positivity rates. PD-L1 immunopositivity in ICs was found to correlate with better disease free survival.

CONCLUSION: PD-L1 immunopositivity was seen in a quarter of NSCLC patients in India. PDL1 positivity on immune cells may be associated with better prognosis in resected NSCLC. However the prognostic value of PD-L1 and clinical response to check point inhibitors in Indian population need to be validated in larger studies.

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205: Venkatesh P, Selvan H, Singh SB, Gupta D, Kashyap S, Temkar S, Gogia V, Tripathy K, Chawla R, Vohra R. Vitreous Amyloidosis: Ocular, Systemic, and Genetic Insights. *Ophthalmology.* 2017 Jul;124(7):1014-1022. doi: 10.1016/j.opthta.2017.03.011. Epub 2017 Apr 12. PubMed PMID: 28412068.

PURPOSE: To report the unique clinical and surgical characteristics encountered in eyes with vitreous amyloidosis. Systemic evaluation and visual outcome after vitrectomy are discussed. A novel mutation in the transthyretin gene (TTR) in

Indian patients with familial amyloid polyneuropathy (FAP) is described.

DESIGN: Retrospective, observational study.

PARTICIPANTS: Ten eyes of 5 patients from 2 pedigrees with a diagnosis of vitreous amyloidosis.

METHODS: Detailed history, pedigree charting, systemic and ocular examination of 10 eyes (5 patients from 2 pedigrees) were carried out. Tests were performed to rule out vitreitis, retinal vasculitis, vitreous hemorrhage, and systemic amyloidosis. Genetic analysis to identify the mutation was performed in 1 patient. Vitreous biopsy, followed by 25-gauge pars plana vitrectomy, was performed in the same sitting in all cases. Samples were sent for Congo red staining and polarized microscopy. Patients were followed up on days 1, 7, and 28 and then every 2 months. Visual acuity assessment, intraocular pressure measurement, and fundus examination were performed each time.

MAIN OUTCOME MEASURES: Mutations in TTR and postoperative visual acuity.

RESULTS: Mean age at presentation was 32 years, with a 3:2 male-to-female distribution. Family history was positive in all patients. Nine eyes had pseudopodia lentis, whereas all 10 had glass wool-like vitreous. Glaucoma developed in 1 patient (2 eyes). Waxy paper-like vitreous with firm vitreous adhesions beyond major arcades and along retinal vessels was noted during surgery in all eyes. Congo red staining and apple green birefringence demonstrated vitreous amyloidosis. The mean preoperative best-corrected visual acuity (BCVA) was 1.39 ± 0.64 logarithm of the minimum angle of resolution (logMAR), whereas the postoperative BCVA improved to 0.17 ± 0.07 logMAR ($P = 0.004$). Gene sequencing revealed a phenylalanine-isoleucine mutation in the 33rd position of exon 2 of TTR in 1 patient of 1 pedigree, confirming the diagnosis of FAP. Two patients subsequently were found to have sensorimotor autonomic neuropathy, whereas 2 others had subclinical autonomic dysfunction.

CONCLUSIONS: The clinical clues, management strategy, surgical characteristics, vitrectomy outcomes, and significance of systemic evaluation in vitreous amyloidosis are highlighted. A novel single mutation (Phe33Ile) in a case of FAP with vitreous amyloidosis from India is reported.

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206: Walia R, Jain D, Madan K, Sharma MC, Mathur SR, Mohan A, Iyer VK, Kumar L. p40 & thyroid transcription factor-1 immunohistochemistry: A useful panel to characterize non-small cell lung carcinoma-not otherwise specified (NSCLC-NOS) category. *Indian J Med Res.* 2017 Jul;146(1):42-48. doi: 10.4103/ijmr.IJMR_1221_15. PubMed PMID: 29168459.

BACKGROUND & OBJECTIVES: Accurate histopathological subtyping of non-small cell lung carcinoma (NSCLC) is essential for targeted therapeutic agents. Immunohistochemistry (IHC) is helpful in identification of different tumour subtypes. In this study two marker approaches, one each for glandular and squamous cell differentiation was applied to maximize the proportion of accurately subtyped NSCLC not otherwise specified (NOS) tumours on small biopsy samples.

METHODS: Two hundred and sixty three consecutive lung biopsies of primary lung carcinoma were prospectively studied. These were subtyped first morphologically and then by IHC for p40 and thyroid transcription factor-1 (TTF-1). The diagnosis of NSCLC-NOS before and after addition of IHC was evaluated. Results were correlated and validated with morphologically proven cases and matched surgical specimens.

RESULTS: Based on morphology, only 140 of the 263 (53.2%) cases of NSCLC were characterized, whereas 123 (46.7%) were classified as NSCLC-NOS type. With addition of IHC (p40 and TTF-1), the latter category reduced to 14.4 per cent and a sum of 225 (85.5%) cases were accurately subtyped into squamous cell carcinoma, adenocarcinoma and adenosquamous carcinoma. p40 showed 100 per cent sensitivity and specificity for squamous differentiation whereas TTF-1 showed sensitivity of 85.3 per cent and specificity of 98.1 per cent. Ninety per cent correlation of morphologic subtypes was achieved with matched resected specimens.

INTERPRETATION & CONCLUSIONS: Our results showed that an approach of using only a two-antibody panel (p40 and TTF-1) might help in reduction of diagnostic category of NSCLC-NOS significantly and contribute in saving tissue for future molecular testing.

DOI: 10.4103/ijmr.IJMR_1221_15

PMID: 29168459

207: Wasan H, Gupta P, Mathur A, Mutneja E, Mathur VP, Gupta YK. Influence of Qualification and Practice Settings of Dental Practitioners on Antimicrobial Prescribing in Delhi and National Capital Region, India. *J Nat Sci Biol Med.* 2017 Jul-Dec;8(2):229-234. doi: 10.4103/0976-9668.210015. PubMed PMID: 28781493; PubMed Central PMCID: PMC5523534.

BACKGROUND AND OBJECTIVES: Inappropriate antimicrobial prescribing is highly reported in dentistry. The objective of the study was to see the effect of dental qualification and practice settings on antimicrobial prescribing practices among dental practitioners in Delhi and National Capital Region (NCR) of India.

MATERIALS AND METHODS: A self-designed and pretested questionnaire was given to 667 dental practitioners holding degrees of graduation, postgraduation, and those pursuing postgraduation, working in academic institutions and private clinics in NCR of India. Data were analyzed using statistical software Stata version 12.0. Chi-square and logistic regression tests were used for analysis.

RESULTS: Out of total 539 responded, 66.4% of the practitioners prescribed by brand name and 27.8% by generic name. Amoxicillin + clavulanic acid (27.4%) was the first choice. Only 26% of the practitioners asked for antimicrobial susceptibility testing. Space infections (91.9%), impacted third molar extractions (89.7%), and periodontal abscess (88.1%) were the conditions where antimicrobials were most frequently prescribed. However, 60.9% and 53.3% of the practitioners also prescribed antimicrobials for acute pulpitis and dry socket, respectively. For prophylaxis in medical conditions, amoxicillin was the first choice. In case of history of allergy to penicillin, 52.3% of the practitioners prescribe erythromycin whereas 14.6% prescribe amoxicillin. The adverse drug reporting culture was negligible, and only 14.3% of the practitioners were aware of the Pharmacovigilance Program of India. Level of qualification had a significant effect on prescribing ($P < 0.05$).

INTERPRETATION AND CONCLUSION: Frequent irrational prescribing of antimicrobials used in odontogenic conditions warrants an urgent and continued need for guidelines as well as educational intervention programs in dentistry. This will improve the quality of antimicrobial prescribing practices in dentistry.

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Conflict of interest statement: There are no conflicts of interest.