

Dr Ratna Sharma

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1. Samanchi R, Muthukrishnan SP, Dada T, Sihota R, Kaur S, **Sharma R**. Altered spontaneous cortical activity in mild glaucoma: A quantitative EEG study. *Neuroscience Letters*, Volume 759: 136036, , 2021, <https://doi.org/10.1016/j.neulet.2021.136036>
2. Gurja JPK, Muthukrishnan SP, Tripathi M, **Sharma R**. Reduced Resting State Cortical Alpha Connectivity Reflects Distinct Functional Brain Dysconnectivity in Alzheimer's Disease and Mild Cognitive Impairment. Accepted in *Brain connectivity*, <https://doi.org/10.1089/brain.2020.0926> June 2021
3. Zacharia, A.A., Ahuja, N., Kaur, S., **Sharma R** Frontal activation as a key for deciphering context congruity and valence during visual perception: An electrical neuroimaging study, 2021, *Brain and cognition*, 150: 105711. DOI: <https://doi.org/10.1016/j.bandc.2021>.
4. Gopal Chandra Janaa,*, Ratna Sharmab, Anupam Agrawala A 1D-CNN-Spectrogram Based Approach for Seizure Detection from EEG Signal from EEG Signal Procedia Computer Science 167 (2020) 403–412
5. Anita Pal, Vinay Goyal, Madhuri Behari, **Ratna Sharma**. Study of EEG Microstates in Parkinson's disease: A potential biomarker? *Cognitive Neurodynamics*, 2020, DOI: 10.1007/s11571-020-09643-0
6. Anita Pal, Nishi Pegwal, Madhuri Behari, **Ratna Sharma**. High delta and gamma EEG power in resting state characterise dementia in Parkinson's patients. *Biomarkers in neuropsychiatry*. 2020 DOI: 10.1016/j.bionps.2020.100027
7. Muthukrishnan, SP, Soni S, **Sharma R**. Cingulate oscillatory activity reflects the quality of memory representations in visuo-spatial working memory. *Memory* 2020; DOI: 10.1080/09658211.2020.1826525
8. Kaur M, Sharma HB, Kaur S, Sharma R, Sharma R, Kapoor R, Deepak KK. Comparison of two formats of journal club for postgraduate students at two centers in developing critical appraisal skills. *Adv Physiol Educ* 44: 592–601, 2020; doi:10.1152/ad- van.00111.2019.
9. Zacharia, A.A., Ahuja, N., Kaur, S., Mehta N, **Sharma R**. State-dependent perception and perceptual reversals during intermittent T binocular rivalry: An electrical neuroimaging study, *Neuroscience Letters* 736 (2020) 135252, doi.org/10.1016/j.neulet.2020.135252
10. Soni S, Muthukrishnan SP, Sood M, Kaur S, **Sharma R**. Altered parahippocampal gyrus activation and its connectivity with resting-state network areas in schizophrenia: An EEG study. *Schizophr Res*. 2020. doi: 10.1016/j.schres.2020.03.066
11. Zacharia, A.A., Ahuja, N., Kaur, S., Mehta N, **Sharma R**. Does valence influence perceptual bias towards incongruence during binocular rivalry? *Cogn Process* (2020). <https://doi.org/10.1007/s10339-020-00957-9>
12. Suriya Prakash Muthukrishnan, Sunaina Soni, **Ratna Sharma**. Brain networks communicate through theta oscillations to encode high load in a visuospatial working memory task: An EEG connectivity study. *Brain Topography* 2019; doi.org/10.1007/s10548-019-00739-3.
13. Srivastava A, Sharma R, Goyal V, Chaudhary S, Sood SK, Kumaran S. Saccadic Eye Movements in Young-Onset Parkinson's Disease - A BOLD fMRI Study *Neuro-Ophthalmology*, 2019; doi.org/10.1080/01658107.2019.1652656.
14. Sunaina Soni, Suriya Prakash Muthukrishnan, Rupesh Samanchi, Mamta Sood, Simran Kaur, **Ratna Sharma** 'Pre-trial and pre-response EEG microstates in schizophrenia: An endophenotypic marker', *Behavioural Brain Research*, 2019, 371: 111964.doi.org/10.1016/j.bbr.
15. Gurja JPK, Muthukrishnan SP, Tripathi M, Mehta N, **Sharma R**. Multi-domain Cognitive Testing: A Biomarker for Classifying the Cognitive Status of Mild Cognitive Impairment and Alzheimer's Disease, Accepted for publication in the *Neurology India* 2019.
16. Nishi Pegwal Anita Pal **Ratna Sharma** "Deactivation of default-mode network and early suppression of decision making areas during retrieval period by high arousing emotions improves performance in Verbal working memory task," *Cognitive, Affective, and Behavioral Neuroscience*, 2019, 19: 231-238, <https://doi.org/10.3758/s13415-018-00661-4>.

17. Chacko SG, P. Tayade, S. Kaur and **R. Sharma**, "Creation of a high resolution EEG based Brain Computer Interface for classifying motor imagery of daily life activities," *2019 7th International Winter Conference on Brain-Computer Interface (BCI)*, Gangwon, Korea (South), 2019, pp. 1-5. doi: 10.1109/IWW-BCI.2019.8737258
18. Anita Pal Nishi Pegwal Madhuri Bihari **Ratna Sharma** 'Is Dementia in Parkinson' disease related to chronic stress, anxiety and Depression?' *Annals of Indian Academy of Neurology*, 2019, DOI: 10.4103/aian.AIAN_341_18
19. Anita Pal Nishi Pewal Simran Kaur Madhuri Bihari **Ratna Sharma** .Deficit in specific cognitive domains associated with dementia in Parkinson's disease, *Journal of Clinical Neuroscience*, 2018, 57: 116-120.
20. Batabyal T, Muthukrishnan SP, Sharma R, Tayade P, Kaur S. Neural substrates of emotional interference: A quantitative EEG study. *Neurosci Lett*. 685: 1-6. 2018. doi: 10.1016/j.neulet.2018.07.019.
21. Sunaina Soni, Suriya Prakash Muthukrishnan, Mamta Sood, Simran Kaur, Nalin Mehta, **Ratna Sharma**. A novel method for assessing patients with Schizophrenia and their first-degree relatives by increasing cognitive load of visuo-spatial working memory. *Asia-Pacific Psychiatry* 2018;e12333 <https://doi.org/10.1111/appy.12333>
22. Soni, S., Muthukrishnan, S. P., Sood, M., Kaur, S., & Sharma, R. (2018). Hyperactivation of left inferior parietal lobule and left temporal gyri shortens resting EEG microstate in schizophrenia. *Schizophrenia Research*, 2018: 201, 204–207. <https://doi.org/10.1016/j.schres.2018.06.020>
23. Srivastava A, Goyal V, Sood SK, **Sharma R**. Reduced saccadic velocity and pupillary width in young onset Parkinson's disease *Neurology, Psychiatry and Brain Research*, 2018, 27: 17-20.
24. Sharma S, Kaur S, Tripathi M, Talwar A, **Sharma R**. Differential Deficits in Attention, Working and Semantic Memory discriminates between Mild Cognitive Impairment and Alzheimer's disease. *Indian J of Physiology and Pharmacology*. 2017; 61(4): 348-356.
25. Muthukrishnan S-P, Gurja J-P, **Sharma R**. Does Heart Rate Variability Predict Human Cognitive Performance at Higher Memory Loads? *Indian Journal of Physiology & Pharmacology*. 2017; 61(1): 14-22
26. Muthukrishnan S-P, Ahuja N, Mehta N, **Sharma R**. Functional brain microstate predicts the outcome in a visuospatial working memory task. *Behavioural Brain Research*. 2016, 314:134–42.
27. Suriya-Prakash M, John-Preetham G, **Sharma R**. (2015) Is heart rate variability related to cognitive performance in visuospatial working memory? *PeerJ PrePrints* 3:e1377v1.
28. Singh, Y., & Sharma, R. (2015). Individual Alpha Frequency (IAF) Based Quantitative EEG Correlates of Psychological Stress. *Indian Journal of Physiology and Pharmacology*, 59(4), 414–421.
29. Yogesh Singh, Jayvardhan Singh, **Ratna Sharma**, Anjana Talwar. FFT transformed quantitative EEG analysis of short term memory load. *Annals of Neuroscience*, 22(3): 28-31, 2015
30. Muthukrishnan Suriya-Prakash, **Sharma R**. A Novel Visuospatial Working Memory Task to Explore the Effect of Memory Load and Performance, *International Journal of Brain and Cognitive Sciences*, 4(1): 3-7, 2015.
31. Suneetha Sampath, S.C. Mahapatra, M.M. Padhi, Ratna Sharma and Anjana Talwar. Holy basil (*Ocimum sanctum* Linn.) leaf extract enhances specific cognitive parameters in healthy adult volunteers: A placebo controlled study *Indian J Physiol Pharmacol* 2015; 59(1): 69-77.
32. Anshul Srivastava; Ratna **Sharma**, Sanjay Kumar Sood, Garima Shukla, Vinay Goyal, Madhuri Behari . Saccadic Eye Movements in Parkinson's disease. *Indian Journal of Ophthalmology*, Vol. 62(5): 538-544, 2014.
33. Anshul Srivastava, Vinay Goyal, Sanjay Kumar Sood, **Ratna Sharma**. Cognition and control of saccadic system. P. Gamito, & P. Rosa (Eds.). *I see you, you see me: Inferring cognitive and emotional processes from gazing behaviour*. Newcastle-upon-Tyne: Cambridge Scholars Publishing. ISBN (13): 978-1-4438-5460-3, 2014.
34. Singh Y, **Sharma R**, Relationship between General Intelligence, Emotional Intelligence, Stress Levels and Stress Reactivity. *Annals of Neuroscience*, 19(3):107-111, 2012.

35. Singh Y, **Sharma R**, Talwar A. Immediate and long term effects of Meditation on acute stress reactivity, cognitive functions and intelligence, *Alternative Therapies in Health and Medicine*, 18 (6): 46-52, 2012
36. Yadav RK, Magan D, Mehta N, Sharma R, Mahapatra SC. Efficacy of a Short-term Yoga-based Lifestyle Intervention in Reducing Stress and Inflammation: Preliminary Results" *J Altern Complement Med*. 2012 Jul;18(7):662-7.
37. Mohan A, **Sharma R**, Bijlani RL, Effect of Meditation on Stress-Induced Changes in Cognitive Functions. *J Compl Alt Med*, 17(3): 207-212, 2011.
38. **Sharma R**, Gupta N, Bijlani RL Effect of yoga based lifestyle intervention on subjective well being. *Ind J Physiol Pharmacol*, 52(2): 123-131, 2008.
39. **Sharma R**, Khera, S, Mohan A, Gupta, N, Basu Ray, Assessment of computer game as a psychological stressor. *Ind J Physiol Pharmacol*, 50(4): 367-374, 2006.
40. **Sharma R**, Meditation and mental well being. *Ind J Physiol Pharmacol*, 50(3): 205-214, 2006.
41. Meena NB, Jain S, Sharma R, Mathur R, and Nayar U Amygdalar neuronal responses to peripheral noxious stimuli in rats. *Ind J Physiol Pharmacol*, 50(1): 17-27, 2006.
42. Gupta N, Khera, S, Vempati, RP, **Sharma R**, Bijlani RL Effect of yoga based lifestyle intervention on state and trait anxiety. *Ind J Physiol Pharmacol*, 50(1): 41-47, 2006.
43. Bijlani R L, Vempati R P, Yadav R K, Basu Ray R, Gupta V, Sharma R, Mehta N, Mahapatra S C A brief but comprehensive lifestyle education programme based on Yoga reduces risk factors for cardiovascular disease and diabetes mellitus. *J Compl Alt Med*, 11(2): 267–274, 2005.
44. Jain S, Sharma R, Wadhawa S, Effect of prenatal species-specific and music stimulation on the postnatal auditory preference of domestic chick. *Ind J Physiol Pharmacol*, 48(2):174-183, 2004.
45. Jain S, Mathur R, **Sharma R**, Nayar U, Recovery from lesion associated learning deficits by fetal amygdala transplantation. *Neural Plasticity*, 9:53-63, 2001.
46. Jain S, **Sharma R**, Analgesia in the tonic and phasic pain tests in a pharmacological model of autotomy. *Indian J exptl biol*, 40:1269-1274, 2002.
47. Jain S, Mathur R, **Sharma R** and Nayar U, Reversal of hyperalgesia by transplantation in lateral hypothalamic lesioned rats. *Neurobiology*, 9(1):17-22, 2001.
48. Jain S, Mathur R, **Sharma R** and Nayar U Effect of tonic pain on schedule specific feeding behaviour. *Indian Journal of Experimental Biology*, 38:834-836, 2000.
49. Jain S, Mathur R, **Sharma R** and Nayar U, Foetal amygdalar transplantation facilitates recovery of retention deficit in CeA lesioned rats. *Indian Journal of Experimental Biology*, 38:1014-1019, 2000.
50. Jain S, Mathur R, Sharma R and Nayar U, Neural tissue transplant in the lateral hypothalamic lesioned rats: Functional recovery pattern. *Neurobiology*, 7(4): 2000.
51. Jain S, Mathur R, Sharma R and Nayar U, Amygdalar tissue transplants improve recovery of the nociceptive behaviour. *Restorative Neurology and Neuroscience*, 16(2): 1-5, 2000.
52. **Sharma R**, Sinha R, Mathur R, and Nayar U, Neuronal responses of periaqueductal gray to peripheral noxious stimulation. *Ind J Physiol Pharmacol*, 43(4): 449-457, 1999.
53. Sinha R, **Sharma R**, Mathur R, and Nayar U, Hypothalamo-Limbic involvement in modulation of tooth-pulp stimulation evoked nociceptive response in rats. *Ind J Physiol Pharmacol*, 43(3): 323-331, 1999.
54. **Sharma R**, Mathur R, and Nayar U, GABA B mediated analgesia in tonic pain in monkeys. *Ind J Physiol Pharmacol*, 37(1), 1993.
55. Mohan Kumar V, Sharma R, Wadhawa S and Manchanda SK, Sleep inducing function of noradrenergic fibres in the medial preoptic area. *Brain Research Bulletin*, 32(2): 153-158, 1993.
56. **Sharma R**, Manchanda SK and Nayar U, Role of opioid receptors in self aggression in rats. *Ind J Physiol Pharmacol*, 35(3):165-169, 1991.

Chapters in Books

1. Nayar U, Sharma R, Sinha R, Narasaiah M and Mathur R Endogenous pain control, mechanisms In : *Current trends in pain research and therapy-Advances in pain research and therapy* Eds GP Dureja and TS Jayalakshmi 199, pp-9-16.
2. **Sharma R** Yoga and pain relief In: *Emerging concepts in yoga and lifestyle* Eds: Neena Bhattacharya, B H Paudel 2004, pp55-60.

3. A Srivastava, V Goyal, SK Sood, R Sharma. Cognition and control of saccadic system. In P. Gamito (Eds) "I see me, you see me: inferring cognitive and emotional processes from gazing behavior".Cambridge Scholars Publishing. (Accepted for publication).

Letter to editor

1. Kaur S, Sharma R, Rastogi S. "Demystifying the Association of Chemotherapy and Cognition: How Close Are We?" *Journal of Clinical Oncology*, 34(30), pp. 3707–3708, 2016.
2. Leon C, Sharma R, Kaur S. Attention-deficit/hyperactive disorder: missing the bull's eye *Evid Based Mental Health* Epub ahead of print: doi:10.1136/ebmental-2018-300079.*Evid Based Mental Health* 2019;0. doi:10.1136/ ebmental-2018-300079