▼ FACULTY ABSTRACTS

F - 22 : RETINAL NERVE FIBRE LAYER THICKNESS IN PATIENTS WITH SCHIZOPHRENIA AND THEIR FIRST DEGREE RELATIVES: AN OPTICAL COHERENCE TOMOGRAPHIC STUDY

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Background: Optical Coherence Tomography (OCT) is a non-invasive method of imaging the retina. Recent literature showed significant differences in thickness of Retinal Nerve Fibre Layer (RNFL) between schizophrenia patients& normal controls. The present study was conducted to find out whether such differences exist between schizophrenics & their First Degree Relatives (FDRs).

Methodology: Across sectional study done in department of Psychiatry & Ophthalmology, MGMCRI. Institutional ethical committee clearance was obtained. Twenty patients diagnosed with Schizophrenia & their twenty sex matched disease free FDR (siblings) were included in the study. Informed consent was taken. Both groups underwent detailed ophthalmic evaluation to rule out any ocular disease. OCT images of retina were obtained using Spectral laser ophthalmoscope (OPTOS SD-SLO).

Results: The mean age of patients and FDRs were 31.50 & 36.75 years respectively. Mean RNFL thickness of patients was 101.26 µm [125.70 (superior), 89.70 (inferior), 125.10 (nasal) & 64.55 (temporal) quadrants] whereas that of FDRs was 101.87 µm [125.60 (superior), 92.05 (inferior), 127.60 (nasal) & 62.25 (temporal) quadrants]. RNFL thicknesses in normal historical controls were higher (113.66 µm) than both the values, except the nasal quadrant. Mean scores of all quadrants of RNFL thickness of patient and FDRs were compared using t-test which was not significant (p>0.05). Severe psychotic symptoms were negatively correlated with RNFL thickness (p<0.01).

Conclusion: Thus, similar reductions in RNFL thickness in patients and FDRs can be considered an endophenotype of schizophrenia. Future genetic research in this area will further enhance understanding of neurobiological underpinnings of schizophrenia.

Key words: Schizophrenia, First degree relative, Retinal Nerve Fibre Layer, Endophenotype