

A COMPARATIVE STUDY OF NEUROLOGICAL SOFT SIGNS IN DRUG NAIVE PATIENTS WITH FIRST EPISODE OF SCHIZOPHRENIA AND OBSESSIVE COMPULSIVE DISORDER.

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Neurological soft signs (NSS) are minor neurological signs that reflect dysfunction in areas of motor coordination, integrative sensory function, and ordering complex motor tasks, but the dysfunctions are not localizable to specific brain structures.^[1] They reflect a connection disorder among sub-cortical and cortical regions or between cortical regions or cerebral dysfunction in distributed neural networks. Schizophrenia and OCD are considered to be neurodevelopmental disorders with structural and functional brain abnormalities in the prefrontal cortex, striatum, and thalamus being consistently implicated in both disorders.^[2]

Aims And Objectives

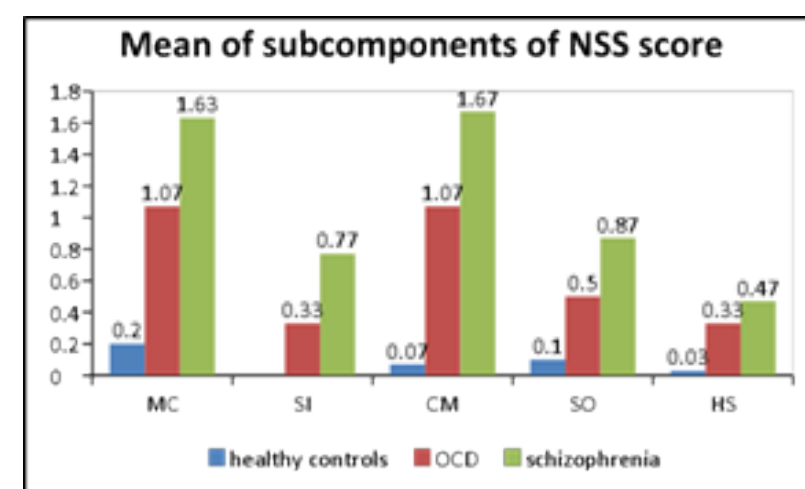
1. To study the socio-demographic profile of the drug naive patients with first episode Obsessive Compulsive Disorder and Schizophrenia.
2. To assess and compare neurological soft signs in drug naive patients with first episode of Obsessive Compulsive Disorder. and Schizophrenia with healthy controls.

Material and methods

A total of 90 patient's i.e. 30 each of drug naive first episode OCD, Schizophrenia and healthy controls were recruited for study by convenient sampling method. The severity of obsessive and compulsive symptoms was assessed by Y-BOCS scale and the psychopathology in patients of schizophrenia by PANSS scale, NSS were assessed by Heidelberg Manual.

Results

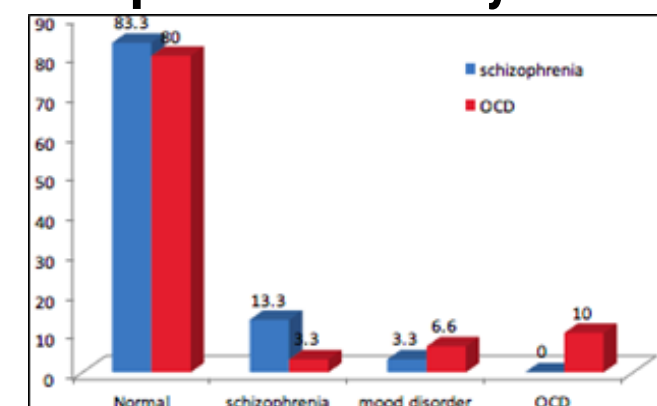
Comparing sociodemographic profile significant difference was found in the age group($p=0.005$)with more of patients <20 yrs. in schizophrenia group and education($p=0.006$) with level of education higher in OCD group in comparison to schizophrenia.



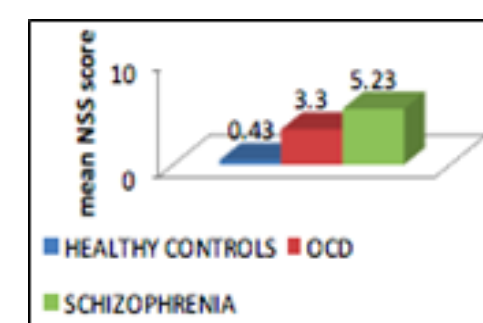
Component	P value
Motor coordination(MC)	0.01 ^S
Sensory integration(SI)	0.002 ^S
Complex motor(CM)	0.001 ^{HS}
Spatial orientation(SO)	0.142 ^{NS}
Hard signs(HS)	0.001 ^{HS}
total NSS score	0.014 ^S

S-Significant ($p<0.05$)
 HS-highly significant($p<0.001$)
 NS-non significant($p>0.05$)

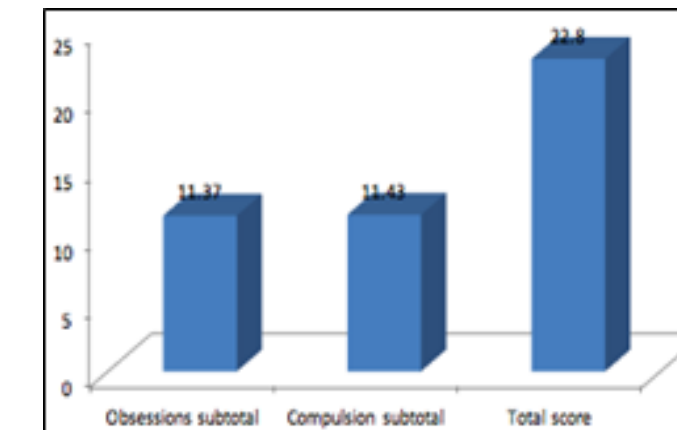
Comparison of family history



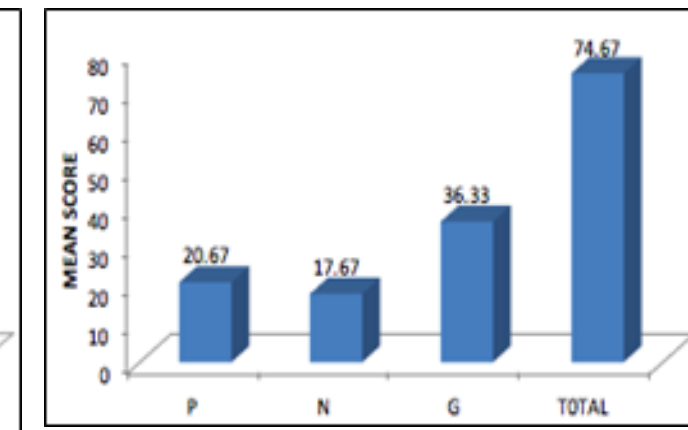
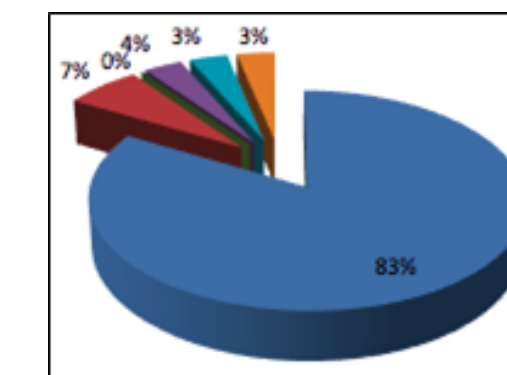
Mean of components and total YBOCS score



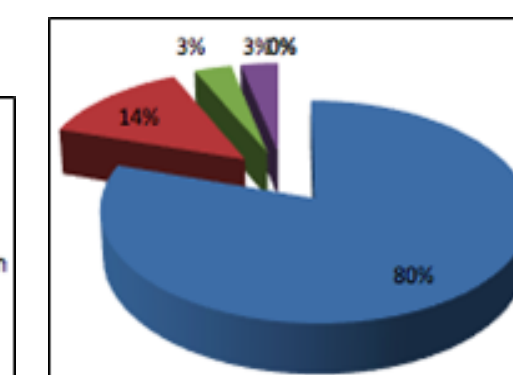
Mean of components and total PANSS score



CT findings in OCD patients



CT findings in schizophrenic patients



Discussion

Neurological soft signs schizophrenia>OCD> healthy controls and difference was highly significant for CM and HS ($p=0.001$),significant for MC and SI($p=0.01,0.002$) and non-significant for SO($p=0.142$). Similar study by Bolton et al found raised levels of soft signs in MC and SI compared with healthy controls.^[3] The schizophrenia group compared with the OCD group had higher level in HS and MC.^[3] Higher scores for MC, CM tasks, and HS seen here were also reported by Hollander et al while difference was non-significant in SI and SO^[4]. No significant correlation was found between symptom severity and NSS total score or any of its sub components($p=0.967$). In a similar study conducted by Thomas et al Scores on the NSS (total or subscales) did not correlate significantly with Y-BOCS total score or subscale scores for obsessions or compulsions.^[5]

Conclusion

The neurological impairment on the basis of score of neurological soft signs was maximum for drug naïve first episode schizophrenia followed by patients of Obsessive Compulsive Disorder and least in healthy controls and the difference was found to be statistically significant ($p<0.05$).In terms of 5 sub components of NSS, among all the groups, maximum score was found in motor coordination followed by complex motor tasks and then in spatial orientation, sensory integration and hard signs in that order .No correlation was found between symptom severity and NSS score. Thus the results support the neurodevelopmental hypothesis for Schizophrenia and OCD.

References

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