mild to moderate & severe category of burden after the commencement of the pandemic.

Conclusion. COVID-19 pandemic increased the caregiver burden for Indian mothers of children with ADHD. They understood a lot more about their child's disorders by spending more time and devised different ways and means of helping their child in academic and other areas.

Assessing Serum Brain Derived Neurotrophic Factor and Matrix MetalloProteinase-9 Levels and Their Correlation With Neurocognitive and Psychosocial Functioning in Bipolar Disorder-I in Remission: A Case-Control Study

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Aims.

1. To determine the association between serum BDNF, serum MMP-9 and cognitive function test in BD-1 patients in remission and to compare with controls.
2. To assess the current psychosocial functioning of BD-I patients in remission and their correlates.

Methods. Single center case control study.

Cases were BD-I patients in Remission (**n = 60**) and controls (**n = 60**) were age and gender matched healthy persons. The diagnosis of BD-1 was confirmed using **Structured Clinical Interview For DSM-IV-Tr Axis I Disorders –Research Version** along with clinical record. Age group between**18–60 years**, in **remission for at least 2 months** [scoring ≤ 8 on the Hamilton Depression Rating Scale, and ≤ 6 on Young Mania Rating Scale] were included. Those with significant head injury, neurological disorder, substance use disorder, Diabetes/Hypertension and premorbid IQ < 70 were excluded.

Control group were excluded if their first degree relative had any psychiatric illness as elicited using Family Interview for Genetic Studies scale (**FIGS**).

Cognitive functioning was assessed using Addenbrooke's Cognitive Examination version III (**ACE-III**) and Trail making test A and B (**TMT A and TMT B**). Current psychosocial functioning was assessed with Functioning assessment short test (FAST).

Five ml blood sample was taken for estimation of serum BDNF and MMP-9 levels by ELISA.

Chi-square test used to compare categorical variables. **Mann-Whitney U test** for continuous variables. **Spearman's correlation** - evaluate the relationship between scores on the cognitive function tests and serum levels of BDNF and MMP-9, within the group of patients with BD-I.

Results. With regards to cognitive functioning, compared to controls, cases performed significantly poor in domains of **Memory** (Z = −3.435, p = 0.001), **Processing speed** (z=−2.667, p = 0.008), and E**xecutive functioning** (Z= −4.084, p = 0.000).

No statistical difference in levels of serum BDNF and MMP-9 between patients and controls were found.

While BDNF serum levels were not associated with cognitive or psychosocial functioning, there were significant relation between **serum MMP-9 and the various domains of FAST scale and total FAST score (rho = 0.447, p < 0.001).**

BD-I patients exhibited **poor psychosocial functioning** compared to controls even in euthymic state (U = 702.00, p < 0.000).

Conclusion. Patients with BD-I display **poor performance in memory, executive function and psychosocial functioning** even during euthymic state compared to controls.

Serum BDNF and MMP-9 levels comparable to the healthy controls during remission- pointing towards them as **state markers** rather than trait.

Need for **routine evaluation of cognitive functio**n during follow-up visits and f**ocus on target deficits for rehabilitation** for better recovery and improving the quality of life of BD patients.

Associated Mortality Risk of Atypical Antipsychotic Medication in Individuals With Dementia (AMRAAD): A Clinical Cohort Study

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Aims. Antipsychotic medications such as risperidone, olanzapine and aripiprazole are used to treat psychological and behavioural symptoms among dementia patients. Current evidence indicate prescription rates for antipsychotics vary and wider consensus to evaluate clinical epidemiological outcomes is limited. This study aims to investigate the potential impact of atypical antipsychotics on the mortality of patients with dementia.

Methods. A retrospective clinical cohort study was developed to review United Kingdom Clinical Record Interactive Search system based data between January 1, 2013 to December 31, 2017. A descriptive statistical method was used to analyse the data. Mini Mental State Examination (MMSE) scores were used to assess the severity and stage of disease progression. A study specific cox proportional hazards model was developed to evaluate the relationship between survival following diagnosis and other variables.

Results. A total sample size of 1692 patients were identified using natural language processing of which, 587 were prescribed olanzapine, quetiapine, or risperidone (common group) whilst 893 (control group) were not prescribed any antipsychotics. Patients prescribed olanzapine and Risperidone showed similar risk of death [hazard ratio (HR) = 1.32; 95% confidence interval (CI): 1.08–1.60; P < 0.01], (HR = 1.35; 95%CI: 1.18–1.54; P < 0.001). Patients prescribed Quetiapine showed no significant association (HR = 1.09; 95%CI: 0.90–1.34; P = 0.38). Factors associated with a lower risk of death were elevated MMSE score at diagnosis (HR = 0.72; 95%CI: 0.62–0.83; P < 0.001) along with other demographic factors such as women (HR = 0.73; 95%CI: 0.64–0.82; P < 0.001) and being of a Caucasian British group (HR = 0.82; 95%CI: 0.72–0.94; P < 0.01).

Conclusion. A significant mortality risk was identified among those prescribed olanzapine and risperidone which contradicts previous findings although the study designs used were different. Comprehensive research should be conducted to better assess clinical epidemiological outcomes associated with diagnosis and therapies to improve clinical management of these patients.