However, these differences did not reach statistical significance after adjusting for age, sex, and education.
Conclusions: Cannabis use is associated with greater GM volumes among individual with a first episode of psychosis. However, these differences did not remain significant after adjusting for age sex and education. GM differences could largely be attributed to the age disparity between both groups, with cannabis users being significantly younger than non-users (27 vs. 40.8 years).
Further research into the underlying mechanisms and long-term studies are needed to provide a clearer understanding of how cannabis use affects brain structure over time.

Disclosure of Interest: None Declared

EPV1088

Urinary nighttime and first morning cortisol levels in patients with Prolonged Grief Disorder (PGD) and healthy controls: early outcomes

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Introduction: Prolonged Grief Disorder (PGD) has been recently included in the "Trauma and Stressor-Related Disorders" chapter of the latest edition of the DSM (DSM-5-TR), being fully acknowledged among mental disorders. PGD extend the period of acute grief and increase the risk for a wide range of health impairments. The availability of biomarkers for mental disorders is thought to be crucial in the development of precision psychiatry. The hypothalamus-pituitary-adrenal (HPA) axis activity and cortisol reactivity have frequently been investigated in mental disorders. Data on neurobiology of PGD is lacking. Some studies found that PGD might be associated with increased HPA axis activity and impaired autonomic nervous system regulation.
Objectives: Aim of the present study was to examine the levels of cortisol excreted in urine during the night and first morning and to assess any differences and specificity of HPA axis functioning in a group of individuals with PGD and in one of healthy controls.
Methods: Thirthy-three subjects, comprising 16 subjects diagnosed with PGD (PGD group) and 17 controls (CTL group), were recruited at the Psychiatric Clinic of the University of Pisa (Pisa, Italy). Psychometric assessments included: the Structured Clinical Interview for Mental Disorders-Clinician Version (SCID-5-CV), the Inventory of Complicated Grief (ICG) and the Impact of Events Scale-Revised (IES-R). Enrolled subjects, previously informed on collection procedures, delivered urine samples to the health care providers the same day of the clinical evaluation. Urine cortisol levels were measured by indirect enzyme-linked immunosorbent assays (ELISAs). Analyses were carried out at the Department of Pharmacy of the University of Pisa. Between-groups differences were performed by the non-parametric Mann-Whitney (MW). A p-value <.05 was considered statistically significant.
Results: Descriptive results showed a higher variability (SDs and interquartile ranges) of urinary cortisol levels (total
μg) in the PGD group in respect to the CTL one; by inferential statistics, MW comparisons showed significantly higher urinary cortisol levels in PGD group vs CTL one (p< .05).
Conclusions: Results report that PGD patients had impaired cortisol outputs with respect to control subjects, suggesting a different pattern of production of the hormone during the night and the sleep-wake shift. If this prelimary data will be confirmed in wider samples, there will be a need to understand whether the increased cortisol profile reported in PGD may be due to increased production of the hormone at night (sleep alterations), to an increased peak on awakening (hyperarousal) or both conditions. Such findings might help to define more accurate patient-tailored therapeutic interventions.

Disclosure of Interest: None Declared

EPV1089

Investigating the Role of the Locus Coeruleus Noradrenergic System in Cognitive Function in Amnestic Mild Cognitive Impairment: An fMRI Study

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Introduction: The Locus Coeruleus (LC), the first brain region affected by TAU aggregates in Alzheimer's disease (AD), is the primary source of noradrenaline (NA). Given the importance of NA in cognitive functions, noradrenergic interventions may benefit patients with AD pathology.
Objectives: This study aims (i) to examine memory delay and related fMRI activations in brainstem and midbrain regions in healthy aging and amnestic mild cognitive impairment (aMCI); and (ii) to explore the impact of atomoxetine on memory delay and inhibitory control in aMCI.
Methods: For aim (i), event-related fMRI was used. Fifty-three subjects (28 healthy older adults and 25 with aMCI) completed an incidental recognition memory task with emotional and neutral images. Memory tests were administered four hours later, brain BOLD fMRI activations for remembered versus not remembered images were assessed. For aim (ii), seven participants attended the lab over four days. On visit 1, they received either a placebo or atomoxetine, followed by a stop signal task and an incidental memory task. On visit 2, they completed a recognition memory

task. Visits 3 and 4 repeated this protocol. T-tests were used to compare results between groups and visits.
Results: For aim (i), a greater activation in the left caudate nucleus was observed in older adults compared to aMCI when contrasting remembered items with not remembered ones (SVC, cluster-level pFWE-corr = 0.08). A significant increase in activation was also found in the locus coeruleus (SVC, cluster-level pFWE-corr = 0.018). However, after adjusting for LC integrity and global grey matter volume (GMV), these differences were no longer significant, suggesting structural changes contribute to LC activation differences between healthy controls and MCI participants. For aim (ii), inhibitory control improved slightly but was not statistically significant, while delayed memory decreased during the atomoxetine visit compared to the placebo visit ($p<.05$).
Conclusions: Our findings highlight the caudate nucleus's role in memory encoding in healthy older adults versus those with aMCI, linking LC dysfunction in aMCI to reduced LC integrity. The lack of improvement in executive functions and decreased memory during the atomoxetine visit may stem from individual differences in aMCI. Studies suggest atomoxetine is more effective in patients with high apathy and reduced LC integrity. In future analyses we will stratify participants by apathy and LC integrity to explore atomoxetine's potential benefits. This study contributes to understanding neural mechanisms in aging and aMCI and informs personalized interventions for cognitive decline in AD.

Disclosure of Interest: None Declared

EPV1090

Initial Psychiatric Manifestations in Lewy Body Dementia: A Case Report

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Introduction: Lewy Body Dementia (LBD) is the second most common neurodegenerative disease, after Alzheimer's disease. Initial neuropsychiatric manifestations such as depression, delusions and hallucinations are frequently observed and sometimes make it difficult to diagnose the neurocognitive disorder underlying the symptoms, so it is important to perform a proper clinical examination, as the use of certain neuroleptics may worsen neurological symptoms.
Objectives: This case aims to investigate the psychiatric clinical features of Lewy body dementia from a clinical and therapeutic perspective.
Methods: A comprehensive search on psychiatric manifestations that may cover up dementia.
Results: 71-year-old female with depressive symptoms for the last 8 years. She is admitted to a psychiatric inpatient unit due to worsening of depressive symptoms despite correct adherence to treatment. Her psychiatric history includes a diagnosis of specific phobia, obsessive-compulsive disorder and depressive episodes with inhibitory symptomatology.
During her stay at the hospital, the patient is inhibited, perplexed and experiences feelings of embarrassment and guilt, along with persistent insomnia and poor response to different lines of treatment. Initially, there is notable intolerance to antipsychotics, resulting in worsening of motor and cognitive functions, as well as hypotension, using risperidone and olanzapine. After the withdrawal of treatment, the patient begins to exhibit delusional ideas and visual hallucinations, leading us to consider that she may be suffering from depression associated with an undiagnosed organic brain pathology. Clinical tests (MoCA,MMSE) reveals cognitive symptoms which, along with the motor symptoms, suggests a Parkinson's-dementia complex.
A PET-CT scan with fluorodeoxyglucose-F18 reveals severe hypometabolism in the left parietotemporal and prefrontal regions. These findings are consistent with LBD.
Treatment is initiated with rivastigmine and quetiapine. However, due to the presence of hypotension, quetiapine is replaced with clozapine 25 mg, resulting in a slight improvement in rest and affective responses to the psychotic symptoms.
Conclusions: This case illustrates how depression and psychotic symptoms can serve as early indicators of dementia, stemming from the loss of dopaminergic and acetylcholinergic pathways as part of the neurodegenerative process.
These patients may present with a range of cognitive, neuropsychiatric, sleep, motor, and autonomic symptoms. Depression is prevalent in approximately 28% of these patients. Currently, clinicians diagnose LBD based on the presence of core clinical features and indicative biomarkers. Treatment can be complicated by patients' sensitivity to certain medications, needing careful evaluation of potential side effects. Current guidelines recommend the use of antipsychotics such as quetiapine or clozapine at low doses, as these have a reduced risk of extrapyramidal effects.

Disclosure of Interest: None Declared

EPV1091

Home-based non-invasive brain stimulation for treatment-resistant depression

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Introduction: Depression is a prevalent disease and 30% of affected patients are resistant to pharmacological treatment. Home-Based