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## **EPV0654**

## Ketamine in the treatment of obsessive-compulsive disorder – a case report and literature review

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**Introduction:** Obsessive-compulsive disorder (OCD) is a chronic condition characterized by time-consuming and distressing obsessions and/or compulsions, often accompanied by avoidance behaviours. It is a highly prevalent and incident disorder that results in considerable disability and quality of life reduction.

Current pharmacological treatments are hindered by their delayed onset and the limited evidence on how to approach first and second line treatment-resistant patients.

Recent research showcased the involvement of glutamatergic pathways in the pathophysiology of OCD prompting research into the potential therapeutic use of ketamine, which binds to the N-methyl-D-aspartic acid receptor and acts as a non-competitive antagonist of glutamate.

**Objectives:** The aim of this study is to conduct a literature review on the use of ketamine and its enantiomers as a treatment for OCD and report a clinical case involving an OCD patient who experienced significant improvement following ketamine use.

Methods: A search was performed on PubMed using a combination of keywords and Medical Subject Headings terms, including "Ketamine", "Esketamine" and "Obsessive-Compulsive Disorder". Only studies that involved patients with OCD aged ≥18 years who had received ketamine or its enantiomers as an intervention and that reported treatment response using a validated scale were included. Results: Nine studies were included, 4 case reports, 3 open-label trials and 2 randomized controlled trials, totalling 71 patients. Ketamine was administered intravenously in 7 studies and intranasally in the remaining 2. The results were heterogeneous, with some studies reporting no effect on obsessive-compulsive (OC) symptoms and others demonstrating significant and rapid improvement, albeit some only transitorily.

We present the case of a 42-year-old man who experienced OC symptoms since the age of 20 but was only formally diagnosed with OCD 3 years ago. During his first consultation, the patient described obsessive thoughts related to contamination and dirtiness, accompanied by handwashing rituals and avoidance behaviours (e.g., avoiding touching handles and switches). His Yale-Brown Obsessive Compulsive Scale (Y-BOCS) score was 29. Escitalopram was initiated with a progressive dose titration, resulting in partial improvement (Y-BOCS 23). In a follow-up appointment, the patient disclosed that he had purchased and self-administered a single intravenous dose of 2g of ketamine 2 months earlier for recreational use. This led to an immediate and significant improvement of his OC symptoms. Subsequent re-evaluation 4 months later confirmed that he remained asymptomatic (Y-BOCS 2).

**Conclusions:** Ketamine may be a therapeutic alternative for OCD patients who are treatment resistant due to its rapid antiobsessional effect. Further studies with improved designs and larger sample sizes are warranted to better assess the efficacy of ketamine in OCD treatment. Disclosure of Interest: None Declared

## **EPV0655**

## Neuropsychological functions as endophenotype markers in ocd: a long term follow-up

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**Introduction:** Obssesive Compulsive Disorder (OCD) is characterized by impaired neuropsychological functions that are also influenced by clinical variables and aging.

According to the literature, several of these neuropsychological deficits could be potential endophenotype markers.

Objectives: The present study aimed to study what kind of cognitive deficits OCD patients have and how aging and clinical course modify their cognitive profiles campared with general population. Methods: This study examined a sample of 60 adult outpatients with OCD diagnosis, who were matched with 70 healthy controls (HC). Cognitive performance in both groups was assessed using a neuropsychological battery including Rey-Osterrieth complex Figure (ROCF) and Digit Span Test (DGS). Based on previous research on neuropsychology of OCD, it was specified that these neuropsychological measures could be divided in two composites. The first composite, Executive function, includes Total Digit Span and the domain of organization of ROCF. The second composite, Non-Verbal Memory, includes the copy of ROCF, immediate recall, delayed recall and recognition of ROCF.

Severity of OCD symptoms was assessed by YBOCS and HDRS was used for symptoms of depression.

Both cognitive performance and clinical data were documented before and after a follow-up of 11 years.

During analysis, group differences between patients with OCD and HC regarding demographic and clinical characteristics at baseline and follow-up were calculated with independent t-tests and Pearson tests. The main analysis tested if the change in cognitive function over time differed between patients and controls. To this end, a linear mixed model was used, examining the interaction between age, gender and time in both groups.

**Results:** Older age, in patients with OCD and HC, was associated with poorer performance on executive function and nonverbal memory. Executive function was influenced by severity of OCD, and non-verbal memory by depressive symptoms at baseline. While, after the follow-up, as obsessive and affective symptoms improve along de follow-up, there is no significant change in the neuropsychological pattern.

At baseline, patients with OCD showed a poorer performance than HC in areas of nonverbal memory and executive function. After de follow-up, there is a poorer performance in the cognitive function in both groups, as they get older. However, there is no significant difference in this change between patients and HC.

**Conclusions:** Results suggest that OCD is characterized by the existence of dysfunction in several neuropsychological areas that are influenced by time and clinical variables.

Nevertheless, this alteration is no solely attributable to these factors, as they remain stable through time compared to the general population. Therefore, certain neuropsychological functions might be endophenotype traits of the disorder.