Psychiatric debut of Parkinson's disease secondary to the lrrk2 g2019s mutation

A. Fuerte Hortigon, **J. Diego Guerra Hiraldo**, F. Sánchez Fernández, C. García Campos, M. Ruíz de Arcos, J. Manuel López Domínguez
Departamento de Neurología, Hospital Universitario Virgen Macarena, Spain

Parkinson's disease (PD) is a neurodegenerative disorder characterized by motor and non-motor symptoms. Mutations in the leucine-rich repeat kinase 2 (LRRK2) gene are an important monogenic cause of Parkinson's disease (PD). Reported non-motor features of LRRK2 PD include depression, anxiety and bipolar disorder. We report the case of a 70-year-old man who was diagnosed with Parkinson`s disease secondary to the LRRK2 G2019S mutation. This patient debuted with a psychotic clinic prior to extrapyramidal manifestations.Several lines of data in mice show that LRRK2-G2019S, the most common LRRK2 mutation, produces an abnormal gain of pathological function that affects synaptic activity, spine morphology, persistent forms of synapse plasticity and behavioral responses to social stress, which may contribute to non-motor symptoms observed in humans with PD. A higher rate of psychiatric illness has been reported in these patients. The peculiarity of our case is the debut of the psychotic clinic years before the extrapyramidal clinic.