

## P02-205 - LEIGH SYNDROME AND PSYCHIATRIC DISORDERS

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**Introduction:** Evidence is accumulating that mitochondrial dysfunction is involved in the pathophysiology of some psychiatric disorders such as Bipolar Disorder and Schizophrenia. In addition, among their other symptoms, people diagnosed with mitochondrial disease have high rates of psychiatric disorders. Leigh syndrome is a heterogeneous disorder, usually due to a defect in oxidative metabolism. The symptoms begin in the childhood by neurological troubles. Few reports mention psychiatric disorders. The objective of this work is to study relations between mitochondrial dysfunction and psychiatric disorders through a case of Leigh Syndrome.

**Case report:** It was a 20 year-old male patient, who had taken L-Dopa to treat severe extrapyramidal symptoms caused by Leigh syndrome. He developed, four months ago, acute psychotic symptoms such as audio-visual hallucinations, persecution and mystic delirium. The cerebral MRI had shown signal abnormalities in Basal Ganglia. This aspect was similar to those observed in the MRI having been practiced five years ago. The EEG recording was normal. The CSF and blood lactate levels were normal. The hypothesis that drug (L-Dopa) caused psychiatric disorders was possible. But, the digression of medicine was impossible due to the severity of extrapyramidal symptoms. The evolution under atypical antipsychotic was only partial.

**Discussion and conclusion:** In this case, the CSF lactate levels mean that mitochondrial dysfunction is not an overall explanation for these psychiatric disorders but may at least play a partial role. Psychiatric disorders may be induced by drugs or may just be a simple comorbidity.