TITLE: YOUNG MALE WITH PREVIOUS DIAGNOSIS OF CEREBRAL PALSY PROGRESSING TO GENERALIZED DYSTONIA.

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INTRODUCTION:

L.R.O.S, 24 years-old man, presented for consultation due to progressive gait disorder and generalized involuntary movement that began in adolescence with a previous history of delayed neurocognitive development (cerebral palsy).

DEVELOPMENT

Grandmother reports uneventful pregnancy and childbirth, although he had a history of and epileptic seizures during the neonatal period (which did not recur later). He started babbling at 8-9 months, crawling at 6-7 months and walking around 1 year of age. Always studied in classes with other children with similar disorders, and with the guidance of a mediator. Unfortunately, he has never developed reading nor writing.

Throughout his life he has never spoken more than a few monosyllables, although he comprehends basic commands.

Around the age of 18, his grandmother noticed changes in gait (described as tiptoeing and dragging one leg more than the other), uncoordinated movements of the arms, worsening of speech difficulties (no longer able to speak even monosyllables), painful neck and axial dystonic posture, in addition to dysphagia (worse for solids) and food selectivity.

FAMILY HISTORY

Four cases of neurological disorders are reported in the family: 1) maternal grandfather had childhood epilepsy (no cognitive impairment or movement disorders); 2) mother (44 years old) had childhood epilepsy, moderate to severe cognitive impairment and dystonia; 3) younger sister (21 years old) who has practically the same symptoms (cognitive and speech impairment and dystonia); 4) maternal cousin (5 years old) with newly diagnosed epilepsy and dystonia (also depicted as tiptoeing), sadly, his father did not allow to examine the cousin. They deny consanguinity in the family

NEUROLOGICAL EXAMINATION

Major generalized dystonia, mainly cervical and lumbar, affecting gait and basic movements. Does not communicate verbally. Obeys simple commands. Unaltered tone and reflexes.

COMPLEMENTARY EXAMS

Former brain MRI and electroencephalogram showed no specific alterations.

Molecular analysis by next-generation sequencing was performed to identify potentially pathogenic genetic variants. It was identified, in heterozygosity, in the GNAO1 gene (G Protein Subunit Alpha O1, OMIM\* 139311) the variant Chr16:56,351,376 G>A (or alternatively c.724-8G>A - ENST00000262493), which occurs in a messenger RNA processing site (splicing acceptor site). This variant is absent among about 141,000 individuals in the world population and has never been previously described in the medical literature, however it was deposited in the ClinVar variant repository as probably pathogenic.

REFERENCES

1 - National Center for Biotechnology Information. ClinVar; [VCV000426965.7], https://www.ncbi.nlm.nih.gov/clinvar/variation/VCV000426965.7 (accessed June 1, 2022).

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