



Case report: Pitt-Hopkins like syndrome with CNTNAP2 mutation in three siblings

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Background:

Pitt-Hopkins like syndrome with CNTNAP2 mutation or Pitt-Hopkins like syndrome 1 (PTHSL1) is a very rare autosomal recessive neurodevelopmental disorder, with less than 30 affected individuals reported in literature worldwide.

Case presentation:

The patient is a seven-year-old female who presented with multiple epileptic seizures at the age of 9 months. Initial examination revealed only a minor delay in motor development. Family history included two older sisters (six and four years old), one older brother (died at three) and an aunt (died young) with epilepsy and severe intellectual disability of unknown cause. Initial diagnostic work-up, including EEG, was within normal limits, and the child was successfully treated with valproate. However, due to the burdensome family history, additional tests were performed, including a gene panel for epilepsy, which detected a homozygous deletion of the CNTNAP2 gene, probably of pathogenic significance, which was also later confirmed in two of the patient's older sisters. Seizures began to reappear at the age of three and were more severe, even requiring treatment in the ICU on one occasion. Delay in psychomotor and speech development also became more pronounced.

The patient's epilepsy is currently under control with levetiracetam, oxcarbazepine and phenobarbitone. Despite occupational and physical therapy, she is severely intellectually disabled and exhibits bizarre behaviour (coprophagia), similarly to her older sisters. Recently, at the age of seven, she developed signs of precocious puberty, which was also the case in one of the sisters, and as far as we know, is not yet described as part of Pitt-Hopkins like syndrome 1.

Conclusion:

Here we present a typical case of a very rare neurodevelopmental disorder with early-onset epilepsy, delayed psychomotor development, intellectual disability, severe speech impairment, behavioural abnormalities and precocious puberty as a possible addition to phenotypic spectrum of the syndrome.

Keywords:

CNTNAP2, developmental delay, epilepsy, paediatrics, Pitt Hopkins-like syndrome 1