Outros

(21601) - AUTOSOMAL DOMINANT TUBB3-RELATED DISORDER DETECTED IN A PRENATAL CASE. THE IMPORTANCE OF WES IN THE DIAGNOSTIC OF PRE-NATAL ANOMALIES.

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Introdução

TUBB-related (tubulin Pathology spectrum) disorder result predominantly in developmental brain malformations: microcephaly (impaired mitosis/proliferation), cortical dysgenesis (impaired neuronal migration), anomalies of white matter pathways (impaired axonal pathfinding), anomalies of the cranial nerves (impaired axonal pathfinding), and malformations of the midbrain and hindbrain (possibly impairment of both neuronal migration and axonal pathfinding).

Objectivos

We describe a case of an ongoing pregnancy where the ultrasound revealed brain malformations.

Metodologia

27-year-old pregnant woman, amniocentesis at 19+5 weeks, due to corpus callosum hypoplasia, mild fetal ventriculomegaly, dilated third ventricle and abnormality of the fetal cardiovascular system. Microrray-CGH and WES analysis were performed. Bioinformatic analysis was focused on our targeted 60 genes panel, related with congenital anomalies of nervous system.

Resultados e Conclusões

The microarray-CGH analysis revealed a normal result, which lead to WES analysis. A heterozygous variant in TUBB3 gene, c.785G>A (p. Arg262His) was detected by WES. This variant causes an amino acid change from Arg to His at position 262. According to ACMG guidelines we classified this variant as Pathogenic. The clinical information provided allowed us to conclude that this variant is compatible with autosomal dominant cortical dysplasia, complex, with other brain malformations 1 (OMIM#614039).

The whole-exome sequencing (WES) has proved to be very helpful to establish the definitive diagnosis and the result was given in time to, together with ultrasound information propose TOP. Prenatal whole-exome sequencing (WES) is becoming a very important tool to diagnose the aetiology of foetal malformations, increasing diagnostic rates.

Palavras-chave : Synlab