PDH. Ataxia intermitente na criança devido a deficiência de PDH

Pyruvate dehydrogenase deficiency presenting as intermittent isolated acute ataxia.

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OBJECTIVE: The aim of this study is to report and emphasize unusual presentations of pyruvate dehydrogenase (PDH) deficiency (OMIM 312170).

METHODS: PDH activity and PDHA1 gene were studied in two siblings presenting with intermittent ataxia in childhood. Similar presentations in reported PDH-deficient patients were searched for using the Medline database.

RESULTS: Both patients had PDH deficiency caused by a new mutation (G585C) in the PDHA1 gene, which is predicted to replace a highly conserved glycine at codon 195 by alanine. Although this mutation lies within the thiamine pyrophosphate binding domain, there was no thiamine responsiveness in vivo. The patients presented recurrent episodes of acute isolated ataxia in infancy. Both had normal blood and CSF lactate levels.

Although symptoms initially resolved between episodes during the first decade, both patients subsequently worsened and developed progressive and severe encephalopathy, leading to death in their twenties. The spectrum of intermittent presentations in PDH deficiency includes episodic ataxia, intermittent peripheral weakness, recurrent dystonia and extrapyramidal movement disorders.

CONCLUSIONS: PDH deficiency should be considered in patients with unexplained intermittent and recurrent acute neurological symptoms. Long-term prognosis and outcome remain uncertain. PDH deficiency can occur even with normal CSF lactate concentration.

PMID: 18504677