Thais Armangue - ***Detection of novel autoantibodies in children with OMS***

Abstract:

Opsoclonus–myoclonus-ataxia syndrome (OMAS), is a rare autoimmune disorder that typically affects previously asymptomatic children between 1 and 3 years of age,[1] although it can also occur in teenagers and adulthood.[2,3] This condition typically presents with a characteristic eye movement disorder and myoclonus, along with ataxia, irritability, and sleep disturbances. Approximately 50% of pediatric cases are paraneoplastic associated with neuroblastoma.[4] In addition, although an autoimmune etiology is suspected, the exact pathogenic mechanism remains unknown.[5] An antibody-mediated mechanism has been hypothesized, supported by evidence of clonal B-cell expansion in the cerebrospinal fluid (CSF) of these patients and their favorable response to immunotherapy, including rituximab.[6–8] Although both onconeuronal antibodies (anti-Hu, anti-Ri) and neuronal surface antibodies (HNK1, glycine receptor) have been found in a percentage of paraneoplastic OMAS patients,[5,9,10] efforts to identify a common target antigen have not yet succeeded[11] and no antibodies have been found in idiopathic cases. We will review previous, current and "future" techniques applied for antibody discovery in OMAS.