J Neurol Disord 2021

Multiple system atrophy (MSA) and anti-yo onconeuronal antibody (PCA1): A Case report

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Introduction: Multiple system atrophy (MSA) is a progressive neurodegenerative disease caused by cytoplasmatic inclusions of misfolded α-synuclein. The clinically features lead to sub-classified into a parkinsonian and a cerebellar phenotype. When cerebellar syndrome prevails, a differential diagnosis must be made of those ataxias that start in adulthood, such as that produced by gluten intolerance or paraneoplastic disease. The presence of the anti-Yo antibody is detected in cerebellar purkinje cells and not in the nigrostriatal or olivopontin region, so no relationship between the two diseases is inferred.

Material and Method: Our case is a53-year-old men with a history of Gleason 6 prostatic adenocarcinoma treated and in remission, which begins with vertiginous symptoms of subacute and progressive onset one month after cancer diagnosis, and had a positive determination of the anti-Yo antibodies only in serum.

Results: This fact points to a paraneoplastic entity, being cerebellar degeneration our main suspicion. The anti-Yo antibody acts against cytoplasmic antigens of Purkinje cells of the cerebellum and of breast and gynecological tissues. We made the parallel diagnosis of a cerebellar disease with parkinsonism data compatible with multiple system atrophy and we misled the existence of paraneoplastic cerebellar degeneration.

Conclusion: There aren't case reports in the literature in which the final diagnosis was multisystem atrophy cerebellar type with a positive anti-Yo reactivity. More studies should be made to understand if there could be a paraneoplasic variant of this disease.