Paraneoplastic cerebellar degeneration preceding diagnosis of breast adenocarcinoma

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ABSTRACT
We report a case of a 40 years old patient presenting with paraneoplastic cerebellar degeneration. The diagnosis was made based on the clinical picture of axial and appendicular ataxia, associated with findings on MRI and confirmed by the presence of anti-Yo and anti-Ri antibodies in cerebral spine fluid. From this diagnosis, the search for neoplasm began. An invasive carcinoma was then detected by breast biopsy. Surgical treatment was then carried out with subsequent chemotherapy and radiotherapy. With specific cancer treatment, there was a significant improvement in cerebellar symptoms. The case described shows the importance of the neurologist keeping paraneoplastic syndrome in mind in their differential diagnosis list for cerebellar symptoms and signs of insidious onset.

Keywords: paraneoplastic syndromes, cerebellum, immune-mediated disease, gynecological cancer, cerebellar ataxia.
sintomas cerebelares. O caso descrito mostra a importância do neurologista ter em mente a síndrome paraneoplásica em sua lista de diagnóstico diferencial para sinais e sintomas cerebelares de início insidioso.

**Palavras-chave:** síndromes paraneoplásicas; cerebelo; doença imunomediada; câncer ginecológico; ataxia cerebelar.

1 INTRODUCTION

Paraneoplastic neurological syndromes describe the remote neurological immune-mediated consequences of a systemic cancer. Distinctive clinical and serological features direct the search for a tumor, which is subsequently detected in around 65% of cases. Rarely this tumor emerges only months or years after the neurological syndrome, demanding ongoing clinical vigilance. Cerebellar degeneration, usually acute to subacute is one of the presentations of the paraneoplastic syndrome. Yo-antibodies are the most well-established association of a subacute cerebellar syndrome, almost always occurring in women with breast or gynecological tumors. Generally, specific treatment of cancer produces improvement in clinical symptoms.

2 CASE PRESENTATION

Patient S. B., female, 40 years old, presents to the outpatient clinic with axial and appendicular ataxia, in addition to dysarthria. No nystagmus, no dysphagia. The symptoms and signs appeared insidiously about 3 months ago, with relative progressive worsening. She denied fever and headache. History, physical examination and complementary tests without evidence of exogenous intoxication. General laboratory tests showed no significant changes. MRI (figure1) showing cerebellar hypersignal on T2 and FLAIR, without contrast injection enhancement. CSF with slight hyperproteinorrhaquia, without pleocytosis. Test for anti-neuronal antibodies in CSF: positive for anti Yo and anti Ri. - Investigation for gynecological neoplasms began. Breast biopsy showing grade 2 invasive breast carcinoma. Surgical treatment was performed with subsequent chemotherapy and radiotherapy. With specific treatment for adenocarcinoma, there was a significant reduction in cerebellar signs and symptoms.

3 DISCUSSION

The presentation of the case is important so that every neurologist has paraneoplastic syndrome on their differential diagnosis list in cases of insidious cerebellar involvement.
4 FINAL COMMENTS

Although this patient's neoplasm was relatively aggressive (grade 2 invasive carcinoma), the diagnosis was made earlier thanks to the elucidation of the paraneoplastic syndrome, increasing the chances of a better prognosis.

Figure 1. Nuclear magnetic resonance imaging cerebellar showing hypersignal im FLAIR.
REFERENCES

