

56th ANNUAL DIAGNOSTIC SLIDE SESSION 2015

CASE 2015-9

Phedias Diamandis¹, Brendan C. Dickson², Dennis Izukawa³, Claire I. Coire⁴

¹Neuropathology Program, Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, Ontario, Canada

²Department of Pathology and Laboratory Medicine, Mount Sinai Hospital, Toronto, Canada.

³Department of Neurosurgery, Trillium Health Partners, Mississauga, Ontario, Canada

⁴Department of Pathology, Trillium Health Partners, Mississauga, Ontario, Canada

Clinical History:

This 71-year-old female had a 6-month history of worsening speech function with paraphasic errors. The initial CT scan of the head was interpreted to show multiple left sided lesions in the superior and posterior fossa, suspicious for metastases. The metastatic work-up failed to reveal a primary source. Subsequent MR imaging a month later showed this to be a left-sided, complex dural-based mass extending both supra- and infra-tentorially, measuring up to 7.5 cm in maximum dimension. A follow-up CT scan, just a month later, showed a 0.5 cm enlargement in the maximum dimension with progressive narrowing of the fourth ventricle. Neurological deterioration that included right hemiparesis, unsteady gait and worsening aphasia necessitated surgical resection.

Material submitted:

Image from MRI study and an H&E section of cerebellar mass

Points for discussion:

1. What is the histological differential diagnosis of this lesion?
2. What highly specific and sensitive immunohistochemical and molecular techniques could be used to definitively resolve this differential diagnosis?
3. What is the pathophysiological basis for the diagnostic immunohistochemical staining pattern of this lesion?

