Thoracic intramedullary melanocytoma radiologically mimicking a cavernous malformation

Balestrino A, Sbaffi PF, Fede S, Melloni I, Zona G
BACKGROUND: Spinal intramedullary melanocytomas are extremely rare lesions, only 24 cases have been reported in literature\[1\]. Melanocytic lesions of central nervous system (CNS) are most frequently encountered at the posterior fossa and upper part of the cervical spinal cord. Melanocytomas are histopathologically benign lesions, local recurrence and malignant transformation have been reported \[2,3\] warning for the need of complete surgical resection and strict post-operative follow-up.

CASE REPORT: A 62 years old male without previous cancer history came to medical attention for hypostenia at right lower limb since two months before. Neurological examination revealed diffuse M4- strenght deficit at right lower limb and slight urinary retention (300 cc of post void residual).

Thoraco-lumbar post-contrast MRI showed a T10-T11 oval-shaped intramedullary lesion with high T1 intensity, reduced T2 intensity and with intense CE (Fig.1).

Differential diagnosis was between primary intramedullary tumor, metastatic disease and intramedullary cavernous malformation with signs of chronic bleeding with the latter two considered most probable.

All exams performed to search for eventual primary or secondary lesions were negative. In our opinion the most likely diagnosis was intramedullary cavernous malformation.
Because the suspected cavernoma was symptomatic, there was an indication for surgical excision.

Excision was then performed via midline mielotomym under neuromonitoring. A dark lesion was excised through an almost clear dissection plane.

Pathological anatomy examination: **MELANOCYTOMA** (Melan-A+ , S-100+, HMB45+, Ki67: 6%)

**Follow-up:** At 3 and 12 months follow-up no local recurrence or systemic lesions were found. Patient’s neurological status improved, at 1 year follow-up was able to walk without assistance with only slight hypostenia of right lower limb. No adjuvant therapies were performed.

Fig.2. Intraoperative appearance of an intramedullary melanocytoma
Fig. 1. PRE- AND POST-OPERATIVE IMAGING
DISCUSSION: Melanocytomas are rare lesions, only 24 cases have been reported [1]. Spinal cord melanocytomas may present as primary lesion. Even if they are classified as benign lesions, local recurrence and malignant transformations have been reported [2,3]. Gross total resection is the gold standard treatment as it may be curative and no adjuvant therapies are needed. Radiotherapy is suggested in cases of subtotal resection. Wait and see management is discouraged due to the risk of malignant transformation. Due to the risk of recurrence, strict local and systemic follow-up is mandatory.

In our reported case the lesion was mistaken as a cavernous malformation, luckily, as the lesion was symptomatic, a surgical excision was performed. This mistake may have been dangerous because of the known risk of malignant transformation of melanocytoma.

REFERENCES:


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