

Primary Intramedullary Melanocytoma: A Case Report

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Abstract

We report herein a case of primary intramedullary melanocytoma in a 28-year-old female. She presented with a 3-year history of back pain with paresthesia and dysesthesia of the right lower extremity. Magnetic resonance imaging showed an intramedullary mass located at the T11-12 level. The tumor was removed totally. The histopathological diagnosis was melanocytoma. Intramedullary melanocytomas are rare lesions, and this is only the 20th case described in the literature. Though known as benign tumors, local recurrence and the aggressive behavior of melanocytomas must be kept in mind, even following total resection.

Keywords: Melanocytoma; Intramedullary; Spinal

Introduction

Spinal melanocytomas are rare lesions. Localization of these tumors is usually extramedullary, but intramedullary localization can be seen rarely. To our knowledge, only 19 cases of intramedullary

melanocytomas have been reported in the literature to date [1-13]. Melanocytomas are associated with leptomeninges [7,14,15]. Despite their benign nature, the behavior of these tumors can be aggressive because of the high recurrence incidence [13,14]. Herein, we review the literature and report the 20th intramedullary melanocytoma case.

Case Report

A 28 year old female presented with a 3 year history of back pain and paresthesia and dysesthesia of the right lower extremity. These symptoms had been reported to be exacerbated with pregnancy. Her neurological examination was intact. Magnetic Resonance Imaging (MRI) showed an intramedullary mass located at the T11-12 level (Figures 1, 2). Following her preparation for surgery, she underwent T11-12 total laminectomy, and total resection of the intramedullary mass was done with microsurgical technique. The postoperative period was uneventful. The histopathological findings were consistent with melanocytoma (Figure 3).

Discussion

Melanocytomas are rare benign tumors arising from leptomeningeal melanocytes in the central neuraxis. Approximately half of the cases are in the spinal canal, especially intradural and extramedullary. They are usually localized at the lumbar and thoracic levels and sometimes at the cervical level [1-13].

The gross appearance of melanocytoma is as a circumscribed, solitary, black or dark brown pigmented lesion, as seen in our case [4,6]. Although known as benign, the tumors can be aggressive, and malignant transformation has been reported [14]. Distinction between meningeal melanocytoma and malignant meningeal melanoma is not easy. Immunohistochemical staining may be helpful for distinguishing meningeal melanocytomas from pigmented meningiomas and schwannomas [4]. Goncalves et al. [3] described a case of spinal meningeal melanocytoma mimicking neurofibroma. The potential for intracranial metastases of intramedullary tumors as described in the literature has not been shown yet for intramedullary melanocytomas [16,17].



Figure 1: Preoperative magnetic resonance imaging (MRI), T1-weighted sagittal images showing an iso-hypointense lesion at level T11-12.

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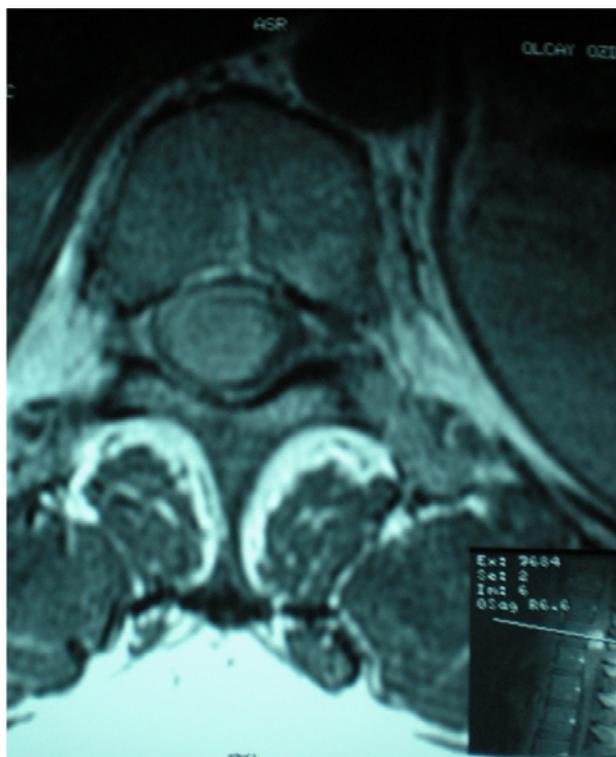


Figure 2: Preoperative MRI, T2-weighted axial images showing an iso-hyperintense lesion at the same level.

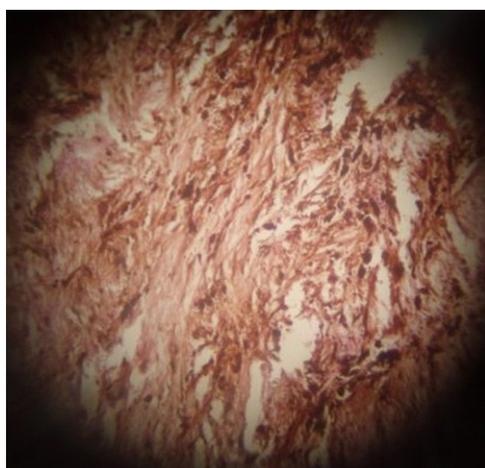


Figure 3: In the histopathological examination, consisting grossly of coal-black tissue, this tumor was seen to be composed of uniform spindle cells arrayed in fascicles. Cytoplasmic melanizations were advanced, particularly at the periphery, and obscured all cytologic detail. Tumor cell nuclei of small diameter can be seen at the less melanocytic areas.

The primary treatment for melanocytoma is surgery. The results of surgery and a review of the literature for intramedullary spinal cord melanocytomas were well documented by Horn et al. [10]. The goal of surgery is total resection, but local recurrence following total resection was reported [10,14]. In subtotal resected cases, postoperative radiotherapy is advised [15].

Conclusion

While intramedullary melanocytomas are extremely rare benign

tumors, local recurrence and the aggressive behavior of this tumor despite total resection must be kept in mind.

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