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Image Report

Stretched intradural extramedullary tanycytic ependymoma of the thoracic spine

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Received : 19 July 2022
Accepted : 04 September 2022
Published : 16 September 2022

DOI
10.25259/SNI_647_2022

Quick Response Code:

ABSTRACT

Background: Tanycytic ependymoma is a rare variant of ependymoma that commonly affects the cervical and thoracic spinal cord. It usually arises as intramedullary lesions and extramedullary cases are extremely rare.

Case Description: We present a 77-year-old woman with the complaints of a 2-year history of progressive paraparesis and sensory loss in her lower extremities. Magnetic resonance imaging revealed a stretched and fusiform intradural extramedullary lesion at T5-T10 level. Gross total removal of the tumor was achieved and a definitive diagnosis of tanycytic ependymoma was established.

Conclusion: This case thus represents a rare case of thoracic intradural extramedullary tanycytic ependymoma and, to the best of our knowledge, it represents the longest intradural extramedullary tanycytic ependymoma in craniocaudal direction ever reported in the literature.

Keywords: Ependymoma, Intradural extramedullary tumor, Tanycytic ependymoma, Thoracic spine

INTRODUCTION

Tanycytic ependymoma is a rare variant of ependymoma that commonly affects the cervical and thoracic spinal cord.[1] It usually arises as intramedullary lesions and extramedullary cases are extremely rare.[1]

CASE PRESENTATION

A 77-year-old woman with the complaints of a 2-year history of progressively worsening low back pain and progressive paraparesis and sensory loss in her lower extremities came to our attention. Magnetic resonance imaging (MRI) revealed a stretched and fusiform intradural extramedullary lesion at T5-T10 level with uniform intensity in T2-weighted sagittal and axial images and strongly enhanced after gadolinium administration [Figure 1]. Under the preoperative diagnosis of schwannoma, the patient underwent T4-T9 spinolaminectomy. After dural opening, a well-demarcated tumor mass at the T5-T10 spinal cord level, which was attached to the spinal cord just in 1 point (just 2 mm in length), was seen and removed in one piece [Figure 2]. Intraoperative neurophysiological monitoring was used during surgery. Gross total removal of the tumor was achieved and no postoperative complications occurred. Histopathological analysis showed brown-gray encapsulated lesion characterized by

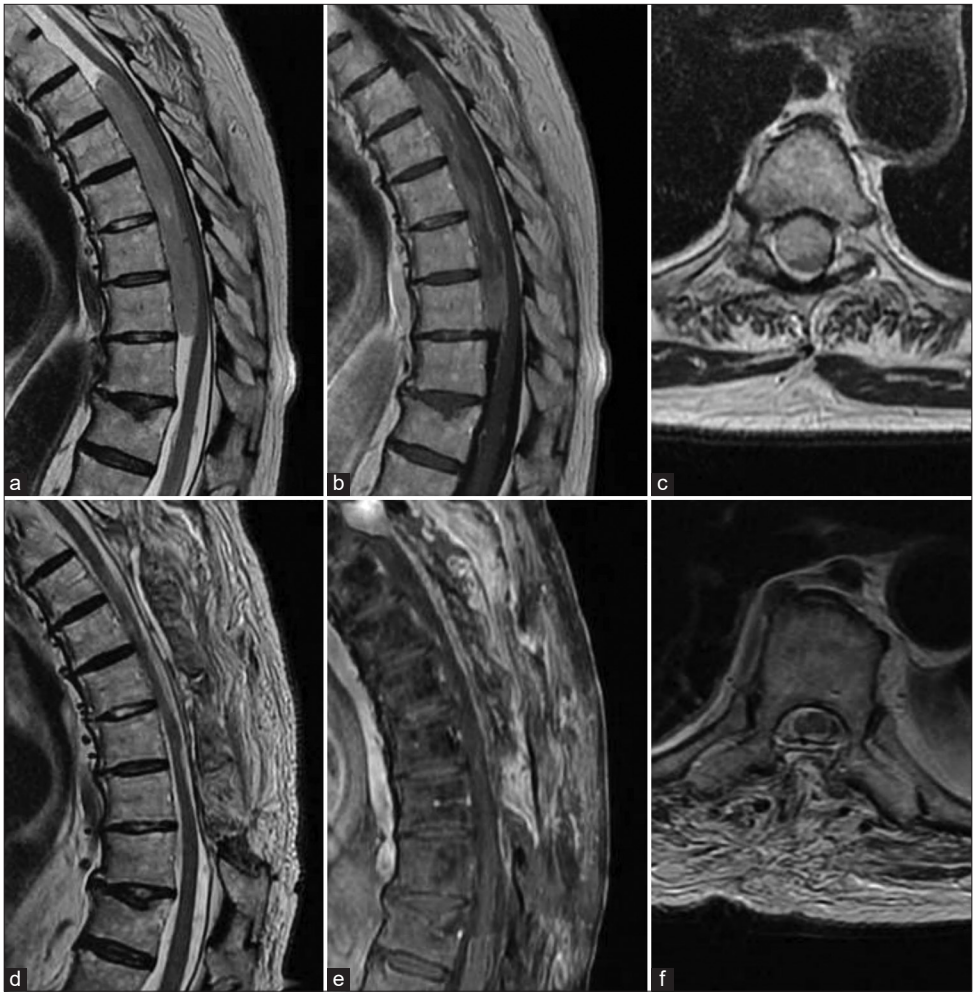

Figure 1: Preoperative T2-weighted sagittal (a), sagittal gadolinium-enhanced T1-weighted (b) and T2-weighted axial (c) MRI showing a stretched and fusiform intradural extramedullary lesion at T5-T10 level about 13 cm long in craniocaudal direction. Postoperative T2-weighted sagittal (d), sagittal gadolinium-enhanced T1-weighted (e) and T2-weighted axial (f) MRI showing complete resection of the mass lesion.

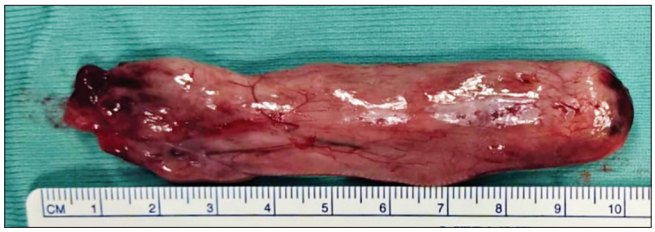

Figure 2: It shows extramedullary tanycytic ependymoma removed in one piece.

spindled and bipolar cells with clear cytoplasm and focal hemorrhagic areas [Figure 3]. Immunohistochemical analyses showed tumor cells diffusely positive for GFAP and S100 protein and focally positive for EMA with dot-like patterns consistent with ependymal differentiation [Figure 3]. Thus, a definitive diagnosis of tanycytic ependymoma was established.

At 1-month follow-up, the patient's symptoms improved. A postoperative MRI showed complete resection of the mass lesion [Figure 1].

DISCUSSION

Tanycytic ependymoma is a histologically distinct rare subtype of ependymoma and is recognized as a Grade II tumor in the latest World Health Organization classification in 2021.[3] Ependymomas of the spinal cord usually arise within the cervicothoracic segment and are the most common intramedullary neoplasms of adulthood. Spinal cord tanycytic ependymoma is a rare neoplasm of the central nervous system that often is misdiagnosed as other diseases. It has a unique histology emphasized by the inconspicuous ependymal pattern of cells, although it has a

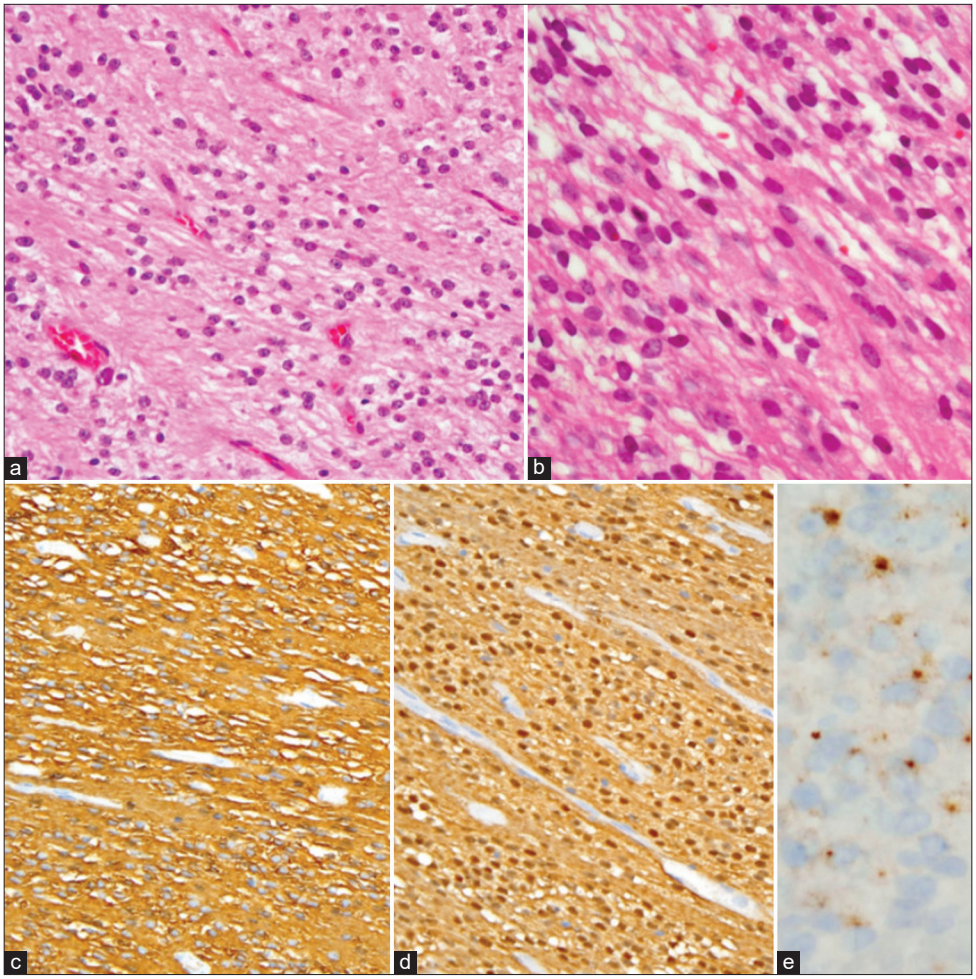

Figure 3: Hematoxylin and eosin staining 200 × (a) and 400 × (b) showed spindled and bipolar cells with clear cytoplasm. Immunohistochemical analyses showed tumor cells diffusely positive for GFAP (c) and S100 protein (d) and dot-like Golgi staining with EMA (e).

close resemblance to schwannoma or astrocytoma on MRI.[2] To date, few cases of spinal cord tanycytic ependymoma have been reported because of its extremely low incidence (1% of all spinal cord neoplasms).[4] In general, the ages of patients ranged from 10 to 76 years with an average of 40 years and the sex ratio of female to male was approximately 1.25:1.[4] Only 14 intradural extramedullary tanycytic ependymomas have been reported in the literature.[4] This case thus represents a rare case of thoracic intradural extramedullary tanycytic ependymoma and, to the best of our knowledge, it represents the longest intradural extramedullary tanycytic ependymoma in craniocaudal length ever reported in the literature.

CONCLUSION

This case thus represents a rare case of thoracic intradural extramedullary tanycytic ependymoma and, to the best of our knowledge, it represents the longest intradural extramedullary tanycytic ependymoma in craniocaudal length ever reported in the literature.

Declaration of patient consent

Patient's consent not required as patient's identity is not disclosed or compromised.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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How to cite this article: Montemurro N, Lorenzini D, Ortenzi V, Giorgetti J. Stretched intradural extramedullary tanycytic ependymoma of the thoracic spine. Surg Neurol Int 2022;13:426.