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Case report

Cervical spinal cord intramedullary teratoma

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Abstract

We present the case of a 62-year-old patient suffering from the presence of a cervical spinal cord intramedullary teratoma and treated operatively. The purpose of this case report is to describe the highly unusual localization of the intramedullary teratoma associated with other vertebral malformations. A review of the literature is also presented.

Keywords: Intramedullary teratoma; Teratoma; Cervical spinal cord; MRI

1. Introduction

Spinal cord intramedullary teratoma is an extremely rare tumor located mainly in the thoraco-lumbar junction [1]. From a survey of the literature, we were able to retrieve 10 cases of cervical intramedullary teratoma [1–10]. We present a case of spinal intramedullary teratoma located in the cervical spine associated with vertebral anomalies.

2. Case report

A 63-year-old man was admitted to the hospital with a 3-year history of neck pain irradiating down to the right arm and coexisting with numbness and dysesthesia gradually worsening. Since 2 months ago, he had noticed a bilateral lower extremities weakness but he reported that, although with effort, he was still able to walk unassisted. The patient was a heavy smoker (two packs per day) and he had been operated 20 years ago for lung tuberculosis but he was not able to provide any further details. Physical examination showed a cachectic patient with severe thoracic kyphoscoliosis and inverted respiratory movement. He was tetraparetic (right side more than left side and upper limbs more than lower limbs) with lower limb hyperreflexia, presence of bilateral babinski and ankle clonus. Long standing exertional dyspnea was reported and spirometry showed the presence of a severe, mainly restrictive disorder. Airflow limitation was due to the anatomy of the thorax and according to the report, no amelioration was expected. The radiological work-up consisted of plain radiographs, CT and MR imaging (Fig. 1). Plain radiographs and CT revealed congenital bony anomalies, such as fusion of vertebral bodies and non-union of C1 anteriorly and posteriorly. The MR imaging study demonstrated expansion of the cord with an inhomogeneous enhancing lesion extending from C2 to C5 level. Fatty foci, calcifications and cystic components were detected in the lesion.

Although patient's condition was rather precarious, surgical treatment was decided. He underwent a C2–C5 laminectomy and partial removal of an intramedullary tumor with exophytic components was obtained. Histologically, multiple tissue fragments consisted of neural parenchyma with reactive gliosis admixed with fully mature epithelial and mesenchymal elements from the three germ layers were found.

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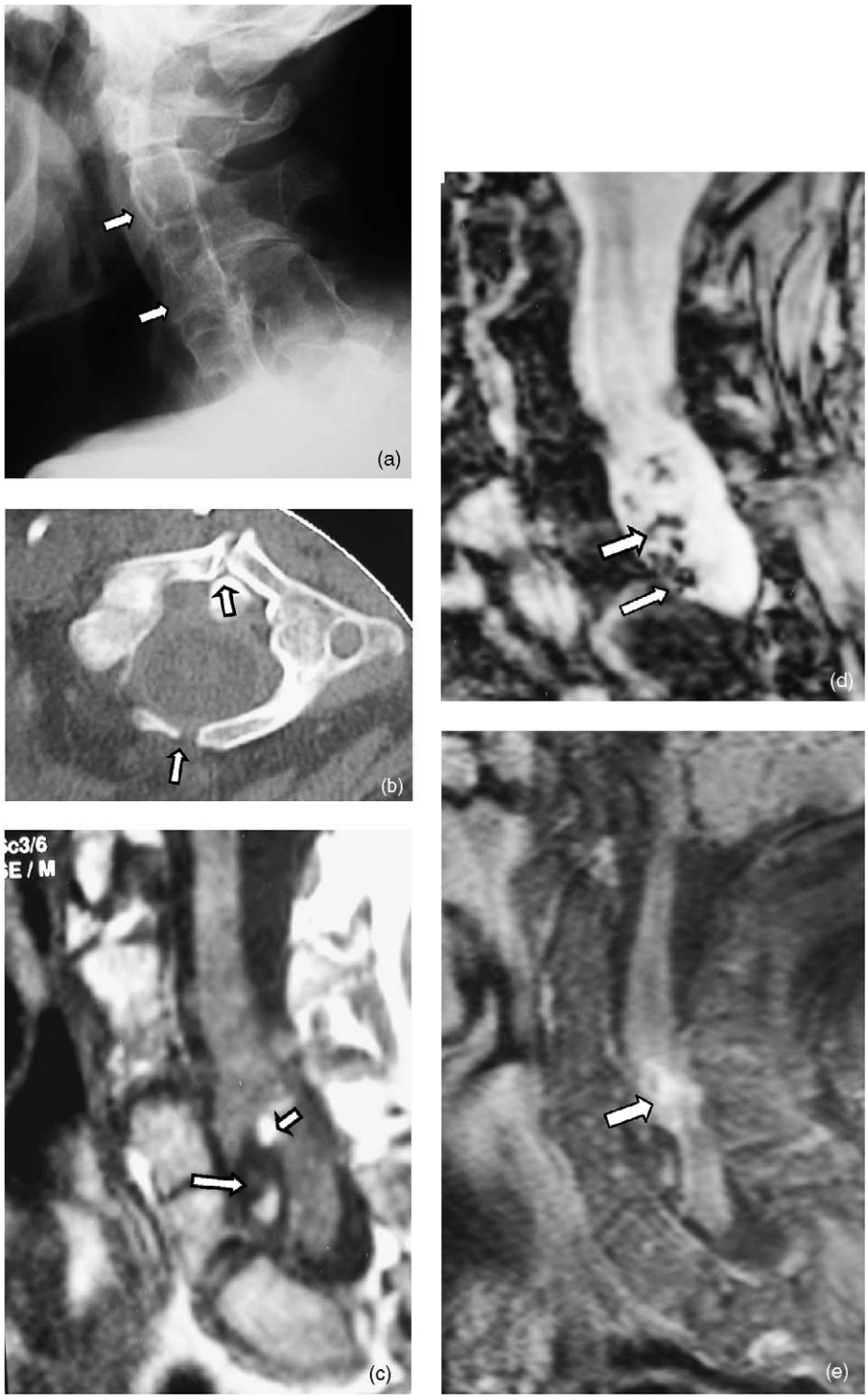

Fig. 1. Sixty-two-year-old man with spinal cord teratoma. (a) The lateral plain radiograph shows fusion of the vertebral bodies C3–C5 (arrows). (b) The axial CT image shows congenital non-union of C1 both anteriorly and posteriorly (arrows). (c) The sagittal T1-w Spin Echo MR image shows expansion of the cord together with hyperintense foci compatible with fat (arrow) and low signal intensity lesions compatible with calcifications (short arrow). The spinal cord is not well demonstrated in the lower cervical spine because of scoliosis. (d) The sagittal T2-w gradient echo image shows susceptibility effects confirming, thus, the presence of calcifications (arrows). (e) The sagittal contrast enhanced fat-suppressed T1-w Spin Echo image shows expansion of the cord together with abnormal enhancement of the solid part of the tumor (arrow).