Spinal intramedullary hamartoma

True hamartomas of the spinal cord are very rare, usually occurring in children with either spinal dysraphism or neurofibromatosis type 1.

They are well- differentiated mature elements located in an irregular position in the spinal cord.

Although several have been reported in the literature, there are few detailed radiological and pathological descriptions of the condition. There is also considerable overlap with other entities, the most common being spinal cord teratomas.

Although typically described in the literature as spinal cord hamartomas because of their histological composition, these rare hamartomatous lesions may be the result of a neurulation defect rather than true hamartomas. In patients presenting with multiple neurological conditions, diagnosis may be more complex. For those presenting with neurological signs and symptoms, surgical treatment is essential [1].

Case reports

2016

A 13-month-old child with a supragluteal sacral dimple who presented with acute neurological deterioration. MRI of the spine revealed a big intramedullary lesion with heterogeneous signal intensity. A near-total resection was performed, and histopathological examination demonstrated findings consistent with a spinal cord hamartoma. The authors believe that careful preoperative evaluation and rigorous pathological examination are mandatory to establish diagnosis and direct further management of cases in which such a lesion is suspected [2].

2015

A case of thoracic spinal hamartoma in a 75-year-old male without associated lesions. This patient represents the oldest of 19 patients whose cases Shindo et al., found reported in detail and one of only nine reported cases without associated lesions. On magnetic resonance imaging, the current patient showed a well-defined exophytic appearance arising from the dorsal midline surface of the spinal cord [3].

2008

A 12-year-old boy who originally presented to the center for treatment of a right thalamic astrocytoma. One year after his initial presentation, the child developed progressive bilateral leg weakness with decreased sensation. Spinal magnetic resonance imaging performed at this time revealed an intramedullary spinal cord lesion from T4 to T8, which was later found to be composed of hamartomatous tissue.

The patient underwent bilateral T4 to T8 laminectomies with subtotal resection of the hamartomatous

lesion, and his symptoms improved postoperatively [4].

[1] , [4]
Abel TJ, Chowdhary A, Jallo G, Wang PP, Burger P, Avellino AM. Thoracic spinal cord compression by intramedullary hamartomatous tissue in a young boy: case report. Neurosurgery. 2008 Jun;62(6):E1380-1; discussion E1381. doi: 10.1227/01.neu.0000333314.40920.5e. PubMed PMID: 18824961.

[2]
Samak EM, Abdel Latif AM, Ghany WA, Hewedi IH, Amer A, Moharram H. Spinal intramedullary hamartoma with acute presentation in a 13-month old infant: case report. J Neurosurg Pediatr. 2016 Aug;18(2):177-82. doi: 10.3171/2016.2.PEDS15561. Epub 2016 Apr 29. PubMed PMID: 27127875.

[3]
Shindo D, Shimono T, Takami T, Tanaka S, Tsukamoto T, Miki Y. Spinal hamartoma in an elderly man. Jpn J Radiol. 2015 Nov;33(11):706-9. doi: 10.1007/s11604-015-0475-5. Epub 2015 Aug 28. PubMed PMID: 26316189.