Intraspinal extradural lipoma

- A rare case of lumbar intraspinal osteolipoma presenting with a sciatic pain
- Paraplegia due to spinal epidural lipoma without spinal dysraphism in an adolescent patient: a case report
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- An intraspinal extradural lipoma with spinal epidural lipomatosis: A case report and a review of literature
- Isolated dorsal column dysfunction due to an intraspinal Osteolipoma - Case report and review of literature
- Clinical classification and surgical management of cervicothoracic intraspinal lipomas
- Surgical removal of spinal mass lesions with open door laminoplasty
- Lumbar nerve root compression due to extradural, intraforaminal lipoma. An underdiagnosed entity?

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see Spinal extradural intraforaminal lipoma

see also Spinal intradural lipoma

An intraspinal extradural lipoma is a rare condition where a benign fatty tumor develops outside of the spinal cord but within the protective covering of the spinal canal. This condition can cause compression of the spinal cord or nerve roots, leading to neurological symptoms such as pain, numbness, weakness, or difficulty with coordination.

Extradural lipomas are often discovered incidentally on imaging studies such as MRI or CT scans, as they may not cause symptoms until they reach a certain size. Treatment may involve surgery to remove the lipoma and relieve pressure on the spinal cord or nerves. The prognosis for patients with an intraspinal extradural lipoma is generally good, especially if the condition is diagnosed and treated early.

Case reports

A rare lipoma arising in the epidural space of a 14-year-old boy without spinal dysraphism. Lipomas are rare in pediatric soft tissue tumors, accounting for only about 4% of cases. The incidence of an intraspinal epidural lipoma without spinal dysraphism is extremely rare in pediatric patients. In this case, the patient had progressive motor deficits in the lower extremities and difficulty in urination and defecation. Magnetic resonance imaging showed an extradural tumor compressing the spinal cord at the T3-T7 level. Because of the progressive neurological deficits, we performed emergency surgery. The tumor was completely resected en bloc, and histopathology revealed mature adipose tissue with fibrous septa, diagnosed as atypical lipomatous tumor / well-differentiated liposarcoma. The patient fully recovered and there was no tumor recurrence for 6 years since the surgery. However, re-examination using fluorescence in situ hybridization after 6 years of surgery changed the diagnosis to lipoma as no amplification of murine double-minute type 2 oncogene was observed. In liposarcoma, histopathological diagnosis using fluorescence in situ hybridization is mandatory. Our case illustrates that immunohistochemical diagnosis alone can be misleading. Hence, prompt surgery is required for

progressive neuropathy [1].

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a 14-year-old male adolescent is described, pain in the lumbar region for four years, of insidious onset, intermittent, progressive, exacerbated six months ago, with radiation to the lower extremities, which is accompanied by progressive paresthesia and paresis predominantly in the lower right limb.

Bilateral L4 and L5 laminotomy is performed for exploration and resection of the tumor, and release of nerve roots. A tumor with characteristics similar to adipose tissue is obtained, where a wide vascular network is observed inside, with an approximate size of 14 × 10 × 4 mm, ovoid in shape, flattened with a smooth and shiny surface.

Spinal tumors are relatively rare tumors, however, of these tumors, the extradural intraspinal location accounts for half of the cases. In the patient, the diagnosis of lipoma of the filum terminale was integrated, which corresponds to less than 1% of all tumors of the spine [2].

A 76-year-old male presented with left lower extremity radiculopathy. The magnetic resonance imaging (MRI) revealed hyperplasia of epidural fat at the L2-3 and L3-4 levels accompanied by a lipomatous L4-5 mass. Following resection of this mass and hyperplastic epidural fat, the histological examination was consistent with an intraspinal extradural lipoma and spinal epidural lipomatosis (SEL).

This case indicates that asymmetrical compression of the dural sac may be attributed to an intraspinal extradural lipoma vs. just SEL and/or an angiolipoma [3].

1)
Segi N, Nakashima H, Ando K, Machino M, Ito S, Matsumoto A, Koshimizu H, Tomita H, Nojima T, Imagama S. Paraplegia due to spinal epidural lipoma without spinal dysraphism in an adolescent patient: a case report. Nagoya J Med Sci. 2022 Aug;84(3):656-663. doi: 10.18999/nagjms.84.3.656. PMID: 36237883; PMCID: PMC9529617.
2)
Pavón-Flores J, Benavides-Rodríguez D, Navarro-Ruíz PP, González-Pino R. Radiculopatía asociada a tumor intrarraquídeo extradural en adolescente [Adolescent radiculopathy associated with extradural intraspinal tumor]. Acta Ortop Mex. 2022 Jan-Feb;36(1):52-57. Spanish. PMID: 36099574.
3)
Tateiwa D, Yamasaki R, Ariga K, Hayashida K, Wada E. An intraspinal extradural lipoma with spinal epidural lipomatosis: A case report and a review of literature. Surg Neurol Int. 2018 Oct 23;9:212. doi: 10.4103/sni.sni_280_18. PMID: 30488010; PMCID: PMC6213804.