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Intradural Extramedullary Lipoma: A Case Report

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Abstract :
We report the case of a 23-year-old patient presenting with spinal cord compression evolving over 4 months, with persistent back pain refractory to treatment, hypoesthesia at the D10 level, and paraparesis 4/5 without sphincter disturbances. Anatomical imaging revealed epidural lipomatosis. No predisposing factors were found. Surgical treatment was decided upon. A T10-T11 laminectomy with excision of the intradural lipoma was performed.
Immediate and medium-term postoperative follow-up was favorable, with resolution of motor impairment. Other cases found in the literature and the main predisposing factors are discussed.
Keywords: *Intradural extramedullary lipoma, spinal cord compression, surgical treatment, epidural lipomatosis, neurological symptoms, idiopathic lipomatosis, obesity.*

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I. Introduction :

Intradural extramedullary lipoma is a rare benign tumor belonging to the group of spinal lipomas (including filum terminale lipoma and lipomyelomeningocele) and closed dysraphisms: 1% of all spinal tumors. It is adjacent to the posterior (or posterolateral) aspect of the spinal cord and can occur at any level of the spinal cord. It is often found at the thoracic level with a very slow growth potential and is often discovered in newborns or young children with associated dorsal skin anomalies. It can later appear in adolescents or young adults with the onset/worsening of neurological symptoms.

II. Observation :

A 23-year-old student with no medical history presented with nocturnal back pain. Symptoms progressed to the development of sensory level (Th10). Over two months, there was worsening of clinical symptoms with paraparesis of the lower limbs. On arrival at the hospital, the patient presented with sensory deficit at the Th10 level. There were no sphincter disturbances. MRI revealed dorsolumbar epidural lipomatosis with significant posterior compression at Th10 **(Fig 01/Fig02)**

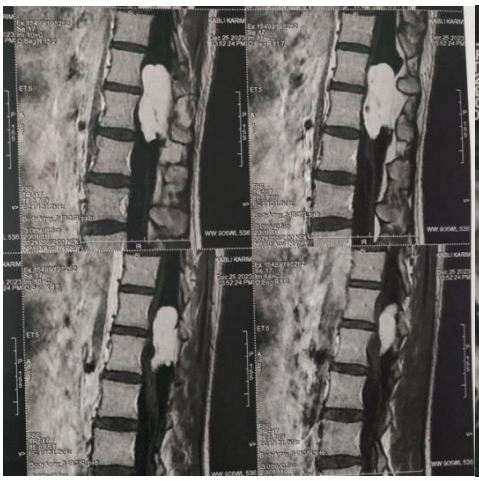


Figure01

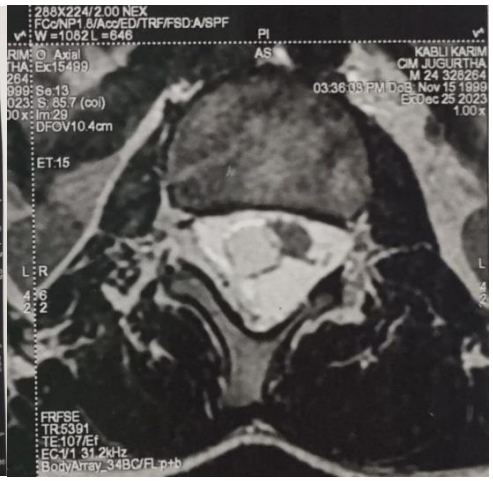
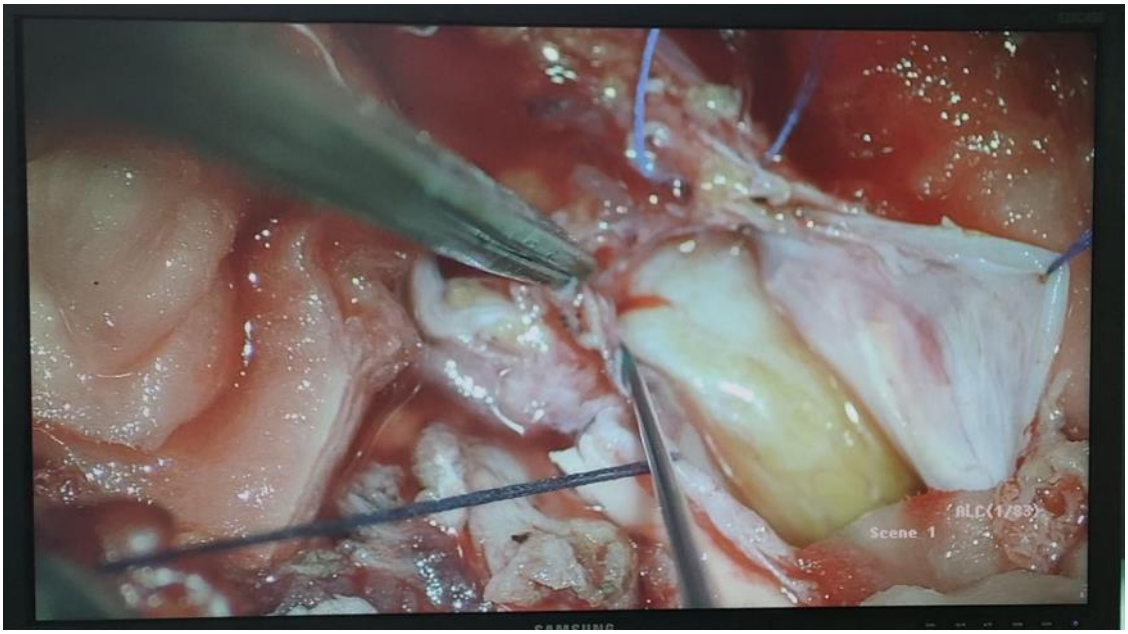


Figure02

Therefore, surgical intervention was decided upon, consisting of a laminectomy from Th10 to Th11 to decompress the dural sac and achieve as wide a resection of the lesion as possible. Under operative microscope **(Fig03)** , the dura mater was found to be adherent to the lipoma. Tumor debulking was initiated by piecemeal excision and ultrasonic aspiration without traction on the spinal cord, ensuring visualization of healthy spinal cord above and below.

Subtotal resection of the lesion was performed without the use of bipolar coagulation to prevent heat diffusion to the spinal cord.



Immediate postoperative clinical evolution was favorable, with marked improvement in motor and sensory function, allowing for unassisted walking on postoperative day 2 with a return to normal gait.

III. Discussion :

The etiologies were discussed. Fogel et al. conducted a meta-analysis on 107 patients, showing that 55.3% of cases of symptomatic lipomatosis were due to corticosteroid therapy, 24.5% were associated with obesity**(02)**, and 3.2% were secondary to Cushing's syndrome**(01/08)**. Finally, only 17% of lipomatosis cases were idiopathic. Three cases of symptomatic epidural lipomatosis were described after epidural corticosteroid injection. A case was described in association with hypothyroidism.

Idiopathic thoracic lipomatosis cases are rare, with only about ten published cases. No cases of isolated cervical lipomatosis were found. Cervical involvement is always associated with lower thoracic involvement.

The diagnosis of lipomatosis is primarily made through MRI. In T2-weighted sequences , fat appears hyperintense, similar to cerebrospinal fluid. Confirmation of the diagnosis is achieved with T1-weighted sequences, where fat appears hyperintense and cerebrospinal fluid appears hypointense.**(04/07)**

IV. Conclusion :

Thoracic intradural lipoma is a rare pathology, with only about ten published cases. It can cause slow spinal cord or root compression, as in our case. It is important to ensure its idiopathic nature by ruling out predisposing factors such as obesity, corticosteroid therapy, or Cushing's disease. In cases of symptomatic idiopathic lipomatosis, surgical treatment is recommended.