Teaching Neuroimage: Lower Limb Muscle Weakness due to Intramedullary Spinal Cord Lipoma

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A 24-year-old man presented with a 6-month history of weakness of the right lower limb, without upper extremity weakness. Spinal cord CT/MRI showed an extensive intramedullary lesion from C7 to T4, with classical radiological features of lipoma (Figure 1). There was no spinal dysraphism. Subtotal resection of the lesion was performed. The pathology confirmed the diagnosis of lipoma. Postoperatively, the patient’s motor function temporarily deteriorated. The symptoms improved after 2-month rehabilitation.

Non-dysraphic spinal intramedullary lipomas are extremely rare, constituting about <1% of all intraspinal tumors1-2. MRI is the most sensitive imaging protocol; typical radiologic appearances can confirm diagnosis and avoid biopsy.


**FIGURE LEGEND**

(A-C) T1-weighted, fat-suppressed T2-weighted and T2-weighted images showed an intramedullary homogeneous lesion extending from C7 to T4. (D) Post-contrast T1-weighted imaging showed no enhancement. (E) CT showed a fatty lesion (−131 HU). (F) Lipoma was consisted of mature adipocytes (H&E:200×). (G-H) After the subtotal resection, MRI showed the residual lesion.
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