

Asymptomatic fatty filum terminale

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Section: Neuroradiology

Imaging Technique: MR

Case Type: Clinical Cases

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Patient: 60 years, male

Clinical History:

Back pain

Imaging Findings:

A lumbosacral MRI was requested for back pain. Turbo spin-echo T1-and T2-weighted images (slice thickness: 4mm) were acquired.

Discussion:

The normal thickness of the filum terminale is stated to be 2 mm or less. The diameter of a thickened and fatty filum terminale is usually above this size, and adipose tissue involving the filum usually extends over multiple spinal segments. It is usually an incidental finding, and is not a cause of back pain. MR imaging evidence of the lipomatous tissue associated with the filum is characterized by a intrathecal tissue distal to a normal conus medullaris that is hyperintense to the cord and to cerebrospinal fluid on T1-weighted images. In postmortem studies a 4%-6% incidence of an isolated fatty filum terminale has been reported, and it was suggested that the condition was a developmental anomaly consisting of fibrolipomatous involvement of the filum terminale. With respect to the embryogenesis of filum lipomas, it has been hypothesized that they probably result from an embryologic inclusion of the caudal neuropore. With respect to the differential diagnosis of these isolated filum lipomas intrathecal hemorrhage, and fat-containing dermoid or teratomatous tumors can be considered, however, these will usually show relevant symptoms. Also, the anatomical configuration of a thickened and fatty filum terminale, a multisegmental lesion involving the filum, enables the correct diagnosis.

Differential Diagnosis List: Fatty filum terminale

Final Diagnosis: Fatty filum terminale

References:

Brown E, Matthes JC, Bazan C III, Jenkins JR. Prevalence of incidental intraspinal lipoma of the lumbosacral spine as determined by MRI.

Spine. 1994 Apr 1;19(7):833-6. (PMID: [8202803](#))

Uchino A, Mori T, Ohno M. Thickened fatty filum terminale: MR imaging.

Neuroradiology. 1991;33(4):331-3. (PMID: [1922748](#))

Okumura R, Minami S, Asoto R, Konishi J. Fatty filum terminale: assessment with MR imaging. J Comput Assist Tomogr. 1990 Jul-Aug;14(4):571-3. (PMID: [2196292](#))

Figure 1

a



Description: Sagittal, T1-weighted MR image shows the hyperintense, multi-segmental filar lipoma, extending from the conus medullaris to S1 level. Its thickness is 4mm. Note the normal positioned conus at the midlevel of L1. **Origin:**

b



Description: Transverse, T1-weighted MR image shows the intrathecal position of the lipoma. **Origin:**