Filum terminale lipoma

- Resection of a rare lumbar epithelioid schwannoma
- A rare case of lumbar intraspinal osteolipoma presenting with a sciatic pain
- Letter to the Editor Regarding "Histological Characteristics of the Filum Terminale in Occult Tethered Cord Syndrome and Filum Terminale Lipoma"
- Collision tumor of myeloma and infiltrative lipoma in the canine spine
- A case of spinal arteriovenous fistula complicated with congenital spinal lipoma and successfully treated with endovascular therapy
- Histological Characteristics of the Filum Terminale in Occult Tethered Cord Syndrome and Filum Terminale Lipoma
- Efficacy of spinal ultrasonography just before caudal epidural block for identifying tethered cord syndrome in urological cases with sacral dimples: a retrospective descriptive study
- Split cord malformations in adults

Type of Lipomyeloschisis.

Filum terminale lipomas (FTL) represent a sub-type of spinal lipomas, where there is fatty infiltration of the filum.

Findings provide further evidence for the idea that entities, such as filar lipoma, TFT, and RMC, can be considered consequences of a continuum of regression failure occurring during late secondary neurulation [1].

Natural history

Filum terminale lipomas (FTLs) are being identified with increasing frequency due to the increasing utilization of MRI. Although an FTL may be associated with tethered cord syndrome (TCS), in many cases FTLs are diagnosed incidentally in patients without any symptoms of TCS. The natural history of FTLs is not well defined.

Filum terminale lipomas are a common incidental finding on spinal MRI, and most patients present without associated symptoms. The untreated natural history is generally benign for asymptomatic patients [2].

Clinical features

In most cases, a fatty filum is an incidental and asymptomatic finding. However, in some individuals, it is associated with spinal dysraphism and tethered cord syndrome.

Asymptomatic lipomas of the filum terminale occur in 0.2–4% [3] [4] of MRIs.

Pathology

Lipoma of the filum terminale is formed as a result of a developmental error in mesodermal cell migration [5].

Radiographic features

A thin filum (<2 mm in diameter at the L5/S1 level) is rarely symptomatic. When the filum is thickened (with or without fat) it is much more likely to be associated with a low lying cord (tip of the conus at or below the mid point of L2) and cord tethering. As such careful assessment of the position of the conus is essential [6].

CT

If large enough, then fat density (-90 to -30 HU) can be seen below the level of the conus. If small, and depending on the quality of the CT scanner, the size of the patient, and the amount of quantum mottle, it may be difficult to identify.

MRI

The abnormality typically is linear and extends over some distance. Signal follows that of fat on all sequences and can demonstrate chemical shift artifact on T2* / gradient weighted sequences.

T1: hyperintense T2: hyperintense fat saturated sequences: signal loss demonstrated T1 C+ (Gd): no enhancement

Differential diagnosis

There is little or no differential when the presence of fat is confirmed, however other filum terminale lesions can be considered only to be eliminated.

paraganglioma of the filum terminale rare iso- to hyperintense on T2 but hypointense on T1 intense enhancement post contrast myxopapillary ependymoma iso- to hyperintense on T2, but hypointense on T1 enhancement post contrast

Treatment

Filum terminale lipoma treatment.

Case series

A total of 436 patients with FTL were identified. There were 217 males and 219 females. Of these patients, 282 (65%) were adults and 154 (35%) were children. Symptoms of TCS were present in 22 patients (5%). Fifty-two patients underwent surgery for FTL (12%). Sixty-four patients (15%) had a low-lying conus and 21 (5%) had a syrinx. The natural history analysis included 249 patients with a mean follow-up time of 3.5 years. In the follow-up period, only 1 patient developed new symptoms [7].

1)
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