VIMS HEALTH SCIENCE JOURNAL

June – 2015 Volume – 2, Issue – 2

ISSN No. –(p) 2348 – 523x , (o) 2454 – 1982 www.vimshsj.edu.in

CASE REPORT - 3

Title : Fibrolipoma of Filum Terminale

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ABSTRACT:

Fibrolipomas of the filum terminale are also known as lipoma of filum terminale or filar lipoma. It may be associated with tethered cord and hence are important to be diagnosed. Most of them are incidental and patient does not have any symptom due to their presence. We present a case of isolated fibrolipoma of the filum terminale in an adult male which was detected incidentally on MRI done for low back pain.

KEY WORDS:

Fibrolipoma, Filum terminale, MRI

INTRODUCTION:

Fibrolipoma of the filum is of embroynic origin. It is diagnosed on MRI and appears as hyperintense area within the spinal canal. It is seen in nearly 6 percent of autopy specimens and hence are considered incidental on MRI Lumbar spine [1,2]. In few cases it is known to be associated with tethered cord. When the fat signal lesion is 2 mm or more than it is diagnosed as fibrolipoma[3,4]. When not associated with tethering of cord these lipomas are asymptomatic. When associated with tethered cord the filum is thick and conus medullaris is low lying[5,6,7,8]. Here we present incidentally noted fibrolipoma of the filum terminale in an adult undergoing MRI evaluation for disc herniation.

CASE REPORT:

A 59-year-old female came for MRI Lumbar spine with history of low back pain. No neurological deficit was appreciated on clinical evaluation. MRI Lumbar spine showes mild degenerative changes in form of marginal osteophytes and Schmorl's nodes. Mild diffuse disc bulges were seen at L3/4, L4/5 and L5/S1 levels causing mild mass effect over the thecal sac. Bilateral neural foraminae were mildly compromised. Mild mass effect was seen over the traversing and exiting nerve roots at above mentioned levels. Along with above findings a linear high signal lesion measuring 3 mm in thickness was appreciated on T1W and T2W images [Image.1,2 & 3] within the spinal filum terminale extending from L2 to S2 vertebral level, suggesting fibrolipoma of filum terminale. However, the position of the conus medullaris was seen at normal L1-L2 level. Small cyst was seen at S3 vertebral level within the spinal canal. This was likely Tarlov's cyst.

IMAGE 1

IMAGE 2

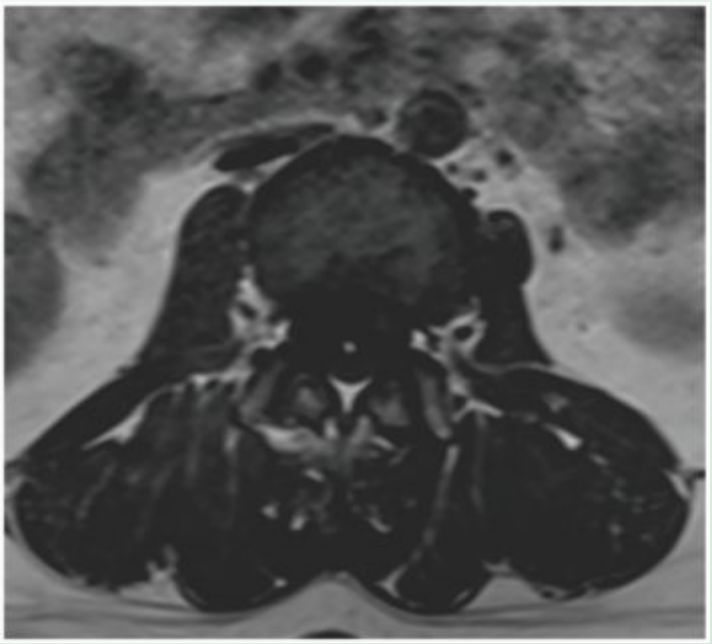

IMAGE 3

Sagittal {image1} and axial {image2} T1W images show well defined thin linear hyperintense signal lesion extending from conus till S3 vertebral level {Arrow} within the spinal canal. It remains relatively hyperintense on T2W image {image3}. Images show disc bulges at lower lumbar levels and mild thecal sac ectasia.

DISCUSSION : Fibrolipoma of filum terminale occur due to embryonic error in development. These are seen in 6% of autopsy specimens. These are considered to be incidental when there is no associated low lying conus or thickened filum [9,10,11]. In our case the conus was at normal position of L2-3 level. The filum was not thickened. The low back pain in our patient was due to degenerative changes at the spine along with disc bulges. Fat in the filum indicates mesodermal cells that have not migrated to their normal position during the process of canalization. The fat within the filum puts the individual at risk of cord tethering[12]. Tight filum terminale syndrome presents with clinical manifestations like pain, dysesthesias, neurogenic bladder and spasticity[8]. It is a diagnosed with a short, thick filum terminale and low lying conus medullaris[7]. Curvature deformities like kKyphoscoliosis is seen in 15% - 25% of these cases[14]. On MRI fibrolipoma appears as thin linear hyperintense signal lesion within the filum terminale on T1W and T2W images. These may be seen to involve intradural, extradural or both portion of the filum. The intradural filar lipomas tend to be fusiform and taper down towards the point where the filum pierces dura, while the extradural filar lipomas are far more diffuse, larger, and tend to merge with adjacent extradural fat. In our case, the intradural part of the filum terminale was involved which appeared as a linear hyperintense signal.

CONCLUSION : Presence of fat in the filum terminale is considered an incidental finding if it is not associated with cord tethering. However it needs to be documented as it increases the probability of one getting tethered cord.

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