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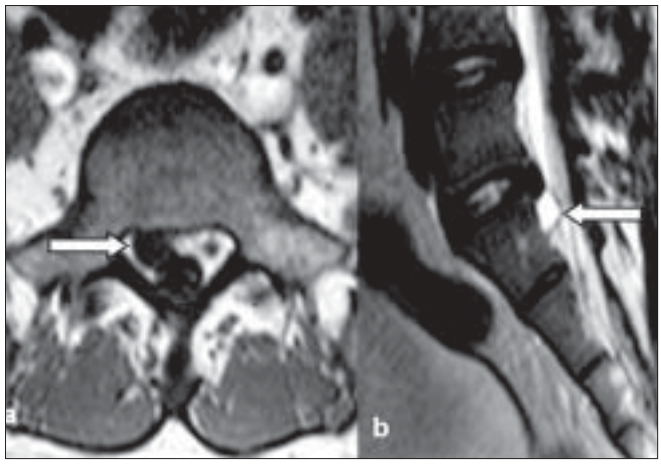

Figure 1: MR imaging of a 26-year-old man showing (a) Axial non contrast T1W image of the lumbosacral spine showing a ventrolaterally placed right-sided extradural lesion (arrow) at the L5S1 disc space level. (b) Sagittal T2 weighted sequence showing a hyperintense lesion adjacent to the posterior aspect of the vertebral body of S1 (arrow). Note the degenerative changes in the adjacent L5 S1 disc

Posterior longitudinal ligament cyst as a rare cause of lumbosacral radiculopathy with positive straight leg raising test

Sir,

A 26-year-old male presented with low back pain radiating to the right calf for six months. Neurological examination revealed diminished right ankle jerk and positive straight leg raising test (SLRT). The MRI of the lumbosacral spine [Figure 1] showed an extradural ventrally placed lesion at the level of L5-S1 disc on the right side. He underwent fenestration at the right L5-S1 interlaminar space and excision of the cyst. The right S1 root appeared stretched by a cystic lesion that was within the layers of PLL, had a translucent wall, contained clear fluid and was not communicating with the disc space, facetal joint, dural tube or the nerve root sheath. The annulus fibrosus was intact and the disc space was not entered into. Histopathology of the cyst wall showed fibro-collagenous connective tissue and adipose tissue. Postoperatively there was resolution of the radicular pain and at 10 months follow-up he was asymptomatic with no neurological deficits.

When a patient presents with unilateral lumbosacral radiculopathy with a positive SLRT, the commonest diagnosis considered is that of an extruded lumbar disc. In a systematic review, Rebain *et al*. have commented that although the SLRT is considered to be a reliable clinical test for diagnosing lumbar disc herniation in a patient with low back pain, its specificity is only 0.4.[1] Hence other pathologies like extradural intraspinal

Table 1: Details of posterior longitudinal ligament cysts reported in the English literature

Reference	Age	Vertebral body level	Adjacent disc	SLRT	Clinical presentation
Lin *et al*.[4]	40	L3	Not mentioned	Not mentioned	Back pain, right L4&L5 radicular pain, claudication, bilateral L4&L5 paresthesia, right anterior thigh hypoesthesia, right quadriceps weakness
Baba *et al*.[2]	26	L4	Degeneration	Positive	Back pain, right leg radicular pain, right L4 hypaesthesia, femoral nerve stretch test positive
Le Breton *et al*.[3]	35	L5	Degeneration	Positive	Left L5 radicular pain, no neurological deficits
Miscusi *et al*.[6]	29	S1	No degeneration	Positive	Left S1 radicular pain, weak left plantar flexion
Marshman *et al*.[5] (Case 1)	30	L4	Degeneration	Positive	Left L3&L4 radicular pain, decreased sensation left L4, femoral nerve stretch test positive
Marshman *et al*.[5] (Case 2)	38	L5	Degeneration	Positive	Back pain, left sciatica, increased urinary frequency
Marshman *et al*.[5] (Case 3)	36	L4	Dehydration	Positive	Left sciatica, no neurological deficits
Present case	26	S1	Degeneration	Positive	Back pain, right S1 radicular pain with radiculopathy

cysts, neurofibromas or schwannomas, metastatic lesions or an epidural vein causing root compression should be considered in the presence of radiculopathy with a positive SLRT.[2-6]

Extradural intraspinal cysts are a rare cause of lumbosacral radiculopathy, of which seven cases in English literature have been reported secondary to posterior longitudinal ligament (PLL) cyst, the details of which are summarized in Table 1.[2-6] As was seen in our patient, PLL cysts have been described to have a broad base to the PLL in the anterior epidural space without connection to the dural tube, facetal joint, intervertebral disc and nerve root.[2-6] On imaging, they are located behind a vertebral body adjacent to the disc space. Degeneration of the adjacent disc,[2,3,5] as was seen in our case and contrast enhancement of the cyst wall[2,3,5,6] has been reported. Marshman *et al*. have summarized the various clinical, radiological and pathological features of PLL cysts and have concluded that they are a distinct entity from disc cysts.[5] It is interesting to note that all patients reported in the literature, including our patient, were young males.

In a patient presenting with unilateral lumbosacral radiculopathy with a positive SLRT, when a disc prolapse is not visualized in the MRI, a careful search for an associated cystic lesion should be made, lest it be missed. Identification of a PLL cyst and its excision without entering the adjacent disc space results in a good clinical outcome.

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