Case Reports and Technical Note

Lumbosacral Lipoma in the Adult

Case Report

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Although the most common cause of low back pain and lower extremity neurological deficit in the adult male is lumbar disc disease, other diagnostic possibilities must be borne in mind. Pediatric neurosurgeons are quite familiar with the occurrence of a subcutaneous lumbosacral lipoma connected to an intradural lipoma by a stalk which is said to be part of a rachischitic malformation;1,2,3,6-11,13,14 the lesion is much less common in adults.

Case Report

A 34-year-old man came to the Long Beach Veterans Administration Hospital on August 21, 1967, with complaints of bilateral leg weakness of 4 to 5 years' duration and severe lateral pain in the left foot. Recently, the pain had increased in severity and had begun to involve the right foot. Sensation in the rectum and bladder had been reduced for 2 weeks. Sexual performance had been normal. The weakness had suddenly become more marked 3 days before admission.

Examination. The head, neck, chest, and abdomen were normal. There was atrophy of the calf muscles of both legs, and the left foot was 1 cm shorter than the right. The patient had an unstable, staggering gait and complained of severe pain when he walked. There was marked weakness of the extensor hallucis longus and tibialis anticus muscles of the left foot and moderate weakness of these muscle groups on the right. The left foot was inwardly rotated. The knee jerks were normal. The right ankle jerk was normal but the left ankle jerk was absent. There were no Babinski signs. Sensory examination suggested hypalgesia bilaterally below the inguinal ligaments. Rectal sphincter tone was decreased, and the bulbocavernous reflex was hypoactive. Overlying the low lumbar and upper sacral area was a subcutaneous lipoma with a small dimple. This region was mildly tender.

Urinalysis, and blood studies including those for syphilis were negative. X-rays of the lumbosacral spine demonstrated spina bifida occulta at L-4 and L-5, and widened interpedicular distances at L-5 and S-1 (Fig. 1). A lumbar myelogram was attempted but

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Fig. 1. Anteroposterior x-ray of the lumbosacral spine showing the spina bifida occulta at the L-4 and L-5 level with widening of the interpedicular spaces at L-4 and L-5. The sacral canal also appears widened.
no spinal fluid could be obtained at the L3–4 or L4–5 levels. Subsequently, a cisternal myelogram was done and the contrast medium flowed freely in the subarachnoid space. With the patient in the prone position, no diagnostic abnormalities were seen; when the patient was placed in the supine position an intradural filling defect from L-2 to L-4 was visualized (Fig. 2).

Operation. On August 28, under general anesthesia a laminectomy was performed from L-1 through L-4. When the subcutaneous lipoma had been dissected free, a contiguous vascular stalk extended through a defect in the lumbodorsal fascia between L-3 and L-4, and thence through the dura (Fig. 3). The dura was opened and the stalk followed until it entered the conus medullaris at the L-3 region (Fig. 4). The nerve roots of the cauda equina ascended to their foraminal exits. The stalk of the lipoma was transected as it entered the neural tissue of the conus (Fig. 5). No attempt was made to dissect the fatty tissue from within the spinal

Fig. 2. Left: Supine cisternal myelogram with the patient's head elevated. At the L-3 level a cap of contrast medium lies over an intradural filling defect. Right: Supine cisternal myelogram with the head lowered. An intradural filling defect can be seen beginning at the L4-5 interspace, larger on the right than the left side. This defect was not apparent when the patient was placed in the prone position.

Fig. 3. Operative photograph demonstrating the subcutaneous lipoma and the stalk that passes through a defect in the lumbodorsal fascia. Forceps have been placed beneath the stalk for clarity.