Redundant Nerve Roots of the Cauda Equina

A Case Report

By

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With 2 Figures

Summary

One further case of redundant nerve roots of the cauda equina is described, and a review of eleven comparable cases in the literature is provided. In the authors’ opinion, this disease appears to be a congenital anomaly, frequently but not necessarily associated with spinal changes.

Redundant nerve roots of the cauda equina have rarely been found at operation. In a recent review of the literature (Sorensen and Wirthlin 1975) five cases were quoted. It has been stressed that signs and symptoms, as well as myelographic findings, may lead to an erroneous preoperative diagnosis of arteriovenous malformation of the spinal cord or disc lesion. Although hypothetical views about aetiology and pathogenesis of this rare condition have been put forward, there still remains considerable uncertainty. The present case seems worth reporting because of the rarity of the disorder.

Case Report

A 61 year-old man, in August 1964, experienced an episode of excruciating right sciatica associated with weakness of the right leg. No history of back trauma was reported. Spontaneous resolution occurred in a few days, but later, periods of good health alternated with relapses of pain and motor weakness. The patient had been admitted to various orthopaedic centres where he was treated with bed rest and analgesics. During the previous two years, frequent low back pain radiating down the right leg disabled the patient for long periods of time, and motor power in the limb deteriorated. No sphincter disorders occurred.
On September 3, 1974, 10 years after the onset of symptoms, the patient was admitted to our clinic with pain and weakness in the right leg. On physical examination wasting of both legs, much worse on the right side, was found. Hypaesthesia to pinprick on the right side in the L 5 and S 1 distributions was noted. The right Achilles and plantar reflexes were severely depressed. The Lasègue test was strongly positive on the right side. X-ray films demonstrated the presence of arthrosis deformans of the lumbar spine, with prominent bar formation.

On September 9, 1974 water soluble myelography was performed, and this revealed a complete block at the L 4/L 5 level associated with a partial defect at the L 3/L 4 interspace without any evidence of serpentine defects (see Fig. 1). It was concluded that these defects were caused by multiple disc lesions, with a herniated lumbar disc at the L 4/L 5 level.

On September 25, 1974 L 4/L 5 laminectomy was carried out. The laminae were thicker than normal and resembled white ivory. No disc protrusions were found. The dura was tense and not pulsating. The laminectomy

Figs. 1a and b. Posteroanterior and lateral views of water soluble myelogram (Dimer-X), demonstrating complete block at the L 4/L 5 interspace. Further partial defect at L 3/L 4 interspace