Triple Conjoint Lumbosacral Nerve Root Syndrome
A Case Report

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Introduction: Conjoint nerve root syndrome is a benign development anomaly, usually occurring in the lumbosacral region. This anatomical variation is in most patients asymptomatic. Due to this syndrome multiple nerves are at risk for entrapment at the level of the anomaly. L5 and S1 roots are most frequently involved (50%), followed by S2 anomalies (30%). Several classifications have been describing different types of anomaly.

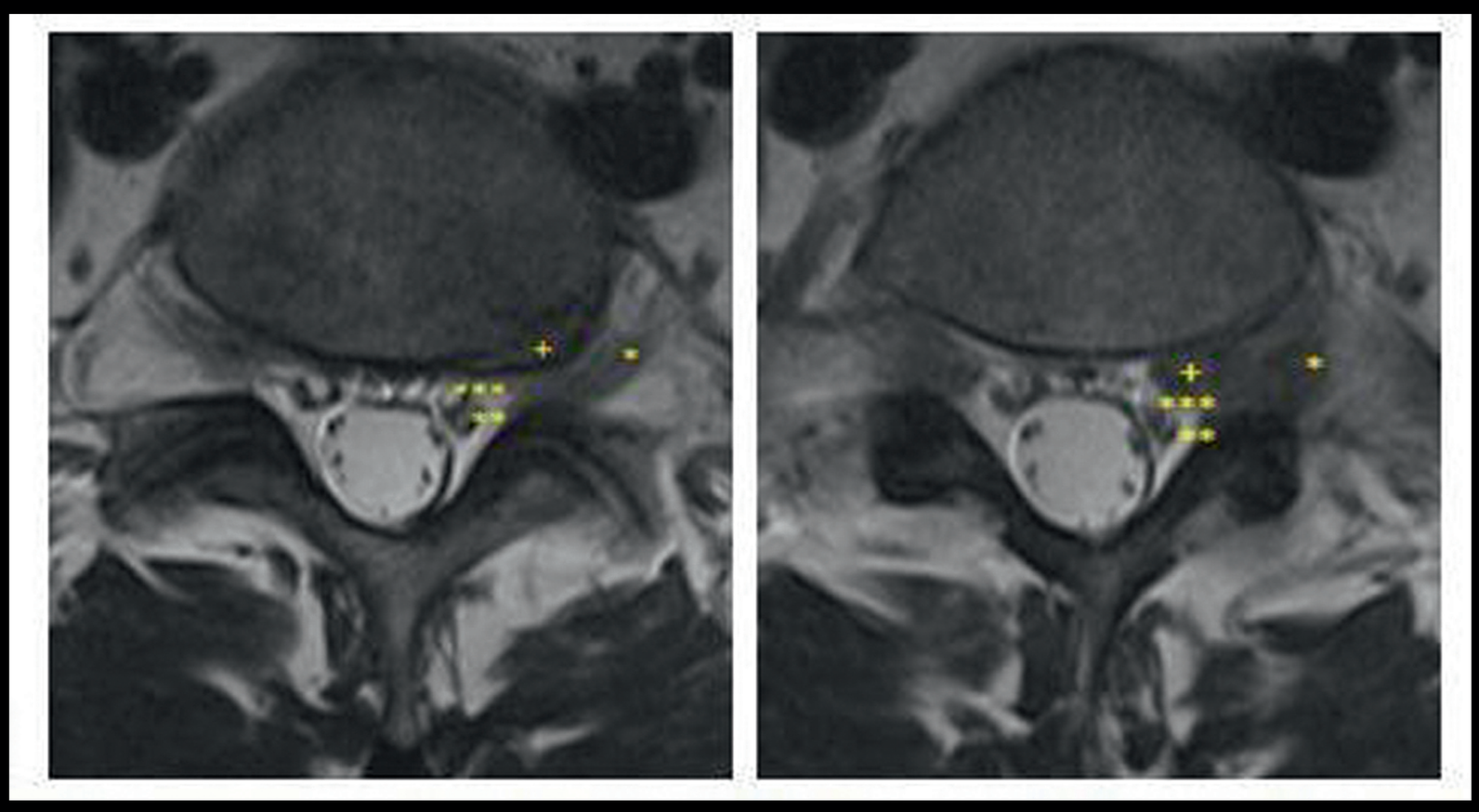

Figure 1: MRI shows disc herniation (+) at level L5-S1. The L5 nerve (*) is compressed passing through the intravertebral foramen. The left lateral recess at disc level L5-S1 contains a sequester (+) of the herniated disc, compressing L5 (*), S1 (**) and S2 (***) nerves.

Case: A 52-year-old female patient developed acute back pain with painful radiation in the left leg matching with both L5 and S1 roots. There was grade 3 loss of power on the Medical Research Council (MRC) grading scale in the extensor muscles of the left foot. MRI showed a foraminal disc herniation at L5-S1 disc level, compressing both L5 and S1. Needle electromyography (EMG) confirmed L5 and S1 radiculopathy. The patient preferred a conservative treatment. Non-surgical treatment with oral pain killers and a transforaminal epidural infiltration were insufficient on pain relief. Eleven days after onset, a lumbar microdiscectomy was done. Intraoperative microscopic view of the left lateral recess at L5-S1 disc level showed a triple conjoint root of L5, S1 and S2 nerves with duplication of S2. All symptoms fully recovered after surgery.

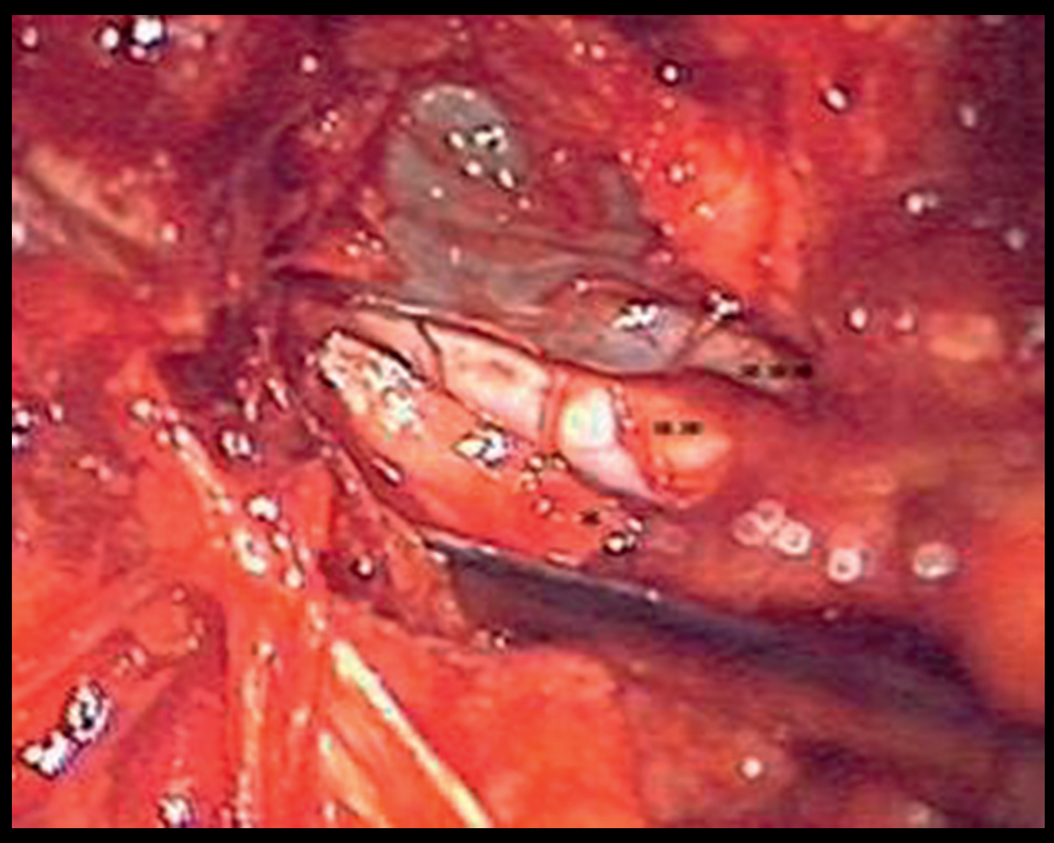

Figure 2: Intraoperative microscopic view of the left lateral recess containing the L5 (*), the S1 (**) and the duplicated S2 nerve (***).

Conclusion: Knowledge of the existence of triple conjoint root development anomaly is of great importance for all spinal surgeons, as the anomalous root can be misinterpreted as a mass lesion, leading to an intervention at an incorrect level or accidentally causing nerve damage during surgery.