

# **Surgical management of spontaneous thoracic and lumbar spondylodiscitis by fixation and debridement.**

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## **ABSTRACT**

**Background:** Spondylodiscitis could be considered one of the most disturbing challenges that face neurosurgeons due to variety of management strategies. The lumbar region was highly affected then dorsal region with higher percentage for lesion in L4/5 (25%) followed by T11/12 and L5/S1 (15%). In our study, we discuss the efficacy of debridement and fixation in cases of spontaneous thoracic and lumbar spondylodiscitis.

**Methods:** This retrospective study included 40 patients with spontaneous thoracic or lumbar spondylodiscitis indicated for surgical intervention in the period from March 2019 to February 2021. All patients were subjected to thorough history taking, neurological examination, and investigations. The patients were operated on through posterior approach by debridement and posterior transpedicular screws fixation and fusion.

**Results:** Clinical assessment early postoperative revealed 75% of cases showed full motor power and 20% showed improvement in motor power, for sensory assessment, 85% showed improvement, the mean visual analog scale (VAS) score was of  $3.65 \pm 0.87$ . After 3 months postoperatively, 95% of cases were full motor power with sensory and autonomic (sphincteric) improvement. The mean VAS score was  $2.5 \pm 0.68$ . After 6 months postoperative, the clinical assessment revealed that 95% of cases were full motor power with sensory manifestation improvement, and 95% of them were continent. The mean VAS score was  $1 \pm 0.85$ . Culture results showed that 65% of samples were negative culture, 15% had methicillin-resistant *Staphylococcus aureus*, and 10% had *Escherichia coli* with a single case of *Pseudomonas* and another one of fungal (*Candida albicans*). Postoperative 90% of cases showed improvement in erythrocyte sedimentation rate results and 95% of cases showed improvement in C-reactive protein results.

**Conclusion:** Management of spontaneous thoracic and lumbar spondylodiscitis by surgical debridement and posterolateral open transpedicular fixation seems to be effective and safe method despite the presence of infection. We found that the clinical condition of our patients showed significant improvement with this addressed approach.