

POSTERIOR DECOMPRESSION, INSTRUMENTATION AND TRANSPEDICULAR BONE GRAFTING IN THORACOLUMBAR TUBERCULOUS SPONDYLODISCITIS

Abdul Rahman Nik Mazian¹, Mohd Shukry Mat Eil @ Ismail², Che Mohd Hanif Che Mat¹, Zakaria Yusoff², Ahmad Sabri Omar²

¹Universiti Sains Malaysia, ²Hospital Raja Perempuan Zainab II

Introduction: Tuberculosis of the spine is a common type of extrapulmonary tuberculosis. The majority are treated conservatively. However, some cases with neurological deficit, severe pain and deformity, require surgical intervention. We analyzed the outcomes of patients who underwent surgical treatment.

Methodology: From January 2017 until December 2018, 18 patients were treated with posterior decompression, instrumentation and transpedicular bone graft. They were given anti-tuberculous drugs for one-year duration with an average of follow up for 18 months except for 2 patients who succumbed to pneumonia. We compare the preoperative and postoperative Visual Analog Score (VAS), ASIA improvement, deformity correction, and time of fusion.

Discussion: All 16 patients achieved bony fusion after 6 months of follow up. VAS significantly improved postoperatively. There is an improvement of ASIA neurology however, not all achieved complete neurological recovery. One patient was complicated with recurrent psoas abscess which needs open drainage. One patient needs second stage anterior decompression and bone graft to correct the kyphotic deformity and bone loss. Range of kyphotic deformity 20 to 60 degrees with an average of 20-degree deformity correction. No failure of construct in all patients during 18 months of follow up. In the literature, it is advocated for radical resection using posterior and anterior approach. However, Lee et al, 2006 reported posterior approach with good outcomes postoperatively. In our centre, the majority of cases operated with posterior decompression, instrumentation and transpedicular bone graft showed good improvement of VAS, kyphosis correction, and ASIA improvement. There are complications that need second stage surgery in very advanced disease with severe bony destruction and tissue involvement.

Conclusion: Posterior decompression, instrumentation and transpedicular bone grafting for the treatment of TB spine showed good clinical outcomes if it is treated early, less kyphotic deformity, bone loss and tissue involvements.