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Spinal tuberculosis: Role of surgery

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Introduction: Thirty-five patients with spinal tuberculosis (15 cervical and 20 dorsolumbar) presenting with a 2–6 months history of neurologic deficits were managed surgically. Chemotherapy was instituted two weeks before surgery and for nine months thereafter; the follow-up was for 12–36 months (mean 15 months).

Objective: To assess the impact of different surgical modalities on neurological outcomes, bony fusion and spinal stability.

Methods: In the cervical group, 14 patients were treated by an anterior cervical approach for decompression followed by fixation by iliac bone graft and cervical plating, one patient with C3 tuberculosis was managed by single stage-combined anterior decompression and fusion by iliac bone graft, followed by posterior occipitocervical fixation by a Ransford Loop. In the dorsolumbar group, 10 cases were managed by posterior instrumentation, five cases had segmental fixation by transpedicular screws, two by Hartshill rectangle with sub-laminar wires, eight by an anterior approach, and another two by circumferential fusion in one session.

Results: All patients had an improved neurologic outcome with solid fusion within six months. In the cervical group, there was an improvement in the Nurick grade from a pre-operative mean of 2.5 to 0.3 during the last follow up. In the dorsolumbar group, the kyphosis angle improved in all patients from 36 to 17 degrees.

Conclusions: Early surgical intervention, posterior rigid fixation, anterior interbody fusion or circumferential fusion plus chemotherapy helps in arresting the disease, providing satisfactory stabilization and kyphosis correction. No additional risks related to the use of an implant were seen, even when large quantities of caseating material were present.