

Introduction

Spinal tuberculosis is a common infectious disease prevalent in developing countries and rising in developed countries.The association of tuberculosis with spondylolisthesis is rarely reported in literature.The aim of our review is to analyze the clinical features and radiologic characteristics of TB spondylolisthesis along with providing a concise update on its surgical management,based on current literature.

Methods

A systematic review is performed based on PubMed database.The articles are selected systematically and relevant data is summarized.

Results

A total of 19 articles are selected for the review. The most common clinical manifestation observed is focal back pain followed by motor deficit.Majority of the patients have Grade 2 listhesis and associated tubercular abscess.The anterior as well as posterior surgical approaches have its own advantages and the choice of approach depends on the location of pathology,ease of access,achievement of spinal stability and avoidance of contiguous infection spread.Though posterior approach and fixation using pedicular screws and rods along with debridement of pus or granulation tissue is the favored approach in dorsolumbar TB,anterior approach,corpectomy and fusion is preferred in cervical TB.

Conclusions

Treatment of TB spondylolisthesis encompasses a wide spectrum of surgical options.However the main stay of treatment is TB chemotherapy.The indications where surgical management may have an upper hand over medical management are spinal cord compression, significant instability,large tubercular abscess, painful vertebral lesions,kyphosis and infection by MDRTB or XDRTB where medical management alone does not help.The surgery is benefitted in these situations by achieving radical debridement, permanent stability,prevention of further neurologic deterioration, and early recovery.The surgical approach should be tailored according the location of bony pathology as it is the main deciding factor for the spinal alignment and stability.Conservative management with absolute immobilization may help in low grade listhesis.Combined approaches

Learning Objectives

1. Treatment update of TB spondylolisthesis-medical vs surgical
2. Treatment of pediatric TB spine deformity
3. Indications of Anterior vs posterior approach in TB spine

References

1. Zou M, Li J, Lv G, Wang B, Deng Y. Treatment of thoracic or lumbar spinal tuberculosis complicated by resultant listhesis at the involved segment. Clin Neurol Neurosurg. 2014;125:1-8.

2. Sinha S, Singh AK, Gupta V, Singh D, Takayasu M, Yoshida J. Surgical management and outcome of tuberculous atlantoaxial dislocation: a 15-year experience. Neurosurgery. 2003;52(2):331-8-9.

3. Schultz KP, Kothe R, Leong JC, Wehling P. Growth changes of solidly fused kyphotic bloc after surgery for tuberculosis. Comparison of four procedures. Spine (Phila Pa 1976). 1997;22(10):1150-1155.