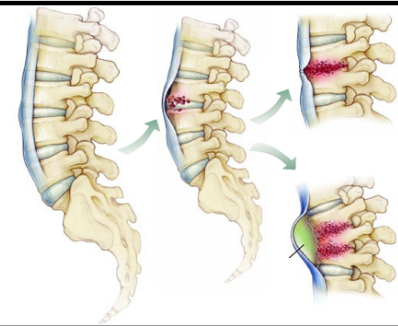


THE BACKBONE OF TB SPINE MANAGEMENT: A GUIDE FOR THE PRIMARY CARE SETTING

R. N. Dunn., SA Orthopaedic Journal 2010



Mycobacterium tuberculosis (TB) prevalence in South Africa 2010: 948 per 100 000.



In areas where HIV is endemic, it is associated with increased musculoskeletal presentations of TB.

30-40% of HIV+ patients die from TB. 44% of TB patients have HIV.



TB of the spine represents 1% of overall cases but carries steep financial costs to the state with complications.

Use multiple modalities

How Patients Present

Axial back pain



± Neurological deficit



Typically delayed presentation



Diagnosis of TB Spine

Positive tuberculin skin test



Sputum positive for acid fast bacilli (AFB)



Bloods - normal WBC and raised ESR



Culture - BACTEC



Histology - caseous granuloma with AFBs

Imaging - paraspinal shadows on X-ray
CT and MRI to further delineate destruction



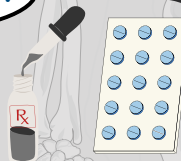
PCR (geneXpert) for nucleic acid detection and resistance



Medical Intervention

Anti-TB Medication:

- **Isoniazid**
 - Most effective bactericidal drug
 - Most effective at preventing resistance
- **Rifampicin**
- **Pyrazinamide**
- **Ethionamide**
 - Most important sterilising drugs
 - Utilised to kill the persisters



Typical management for Spinal TB:

- INH/RIF/PZA/Ethionamide
- Daily for minimum **9 months** - use DOTS programme if needed
- Frequently the duration is extended to 12 months

Longer Rx duration at higher doses is due to dead bone and tissue with poorer antibiotic penetration in spinal TB

Surgical Intervention

If there is instability with both anterior and posterior column involvement and/or deteriorating neurological status.



Refer patient for specialist care for urgent intervention - surgical decompression and stabilisation.



Sidenote: HIV ↔ TB

HIV potentiates TB spine by affecting the immune system and complicates treatment. TB reactivation drives accelerated HIV progression. This vicious cycle potentiates a rapidly deteriorating clinical picture. It is very important to have a high index of suspicion for HIV when dealing with TB. Test and treat! But be aware of potential for IRIS.

