SUMMARY AND CONCLUSION

Spinal infections (pyogenic or granulomatous "tuberculosis or brucellosis") is increasing in incidence and is a common cause of debility in high risk patients (elderly, under-nourished or immunocompromised patients, diabetes mellitus, drug addicts, and patients with sickle cell disease).

MRI is the imaging modality of choice for diagnosis of spinal infections. Advantages of MRI includes multiplanar capabilities and soft tissue contrast resolution which is superior to that of CT. Absence of ionizing radiation, and all compartments in and around the spine are displayed with MRI and unlike other studies. MRI also provides direct visualization of the disc and the spinal cord.

Inflammatory changes can be detected early enough to affect patient outcome. Patient follow up is easy and accurate. Regression of abnormalities caused by surgical and/or medical therapy can be well documented.

The routine sagittal and axial sequences employed are usually T1- and T2-weighted fast spin echo sequences. In addition, gadolinium-DTPA, T1 images are useful in differentiating inflammation from abscess, necrosis and bone sequstra as a result of infection and also in helping to localize and detect subtle areas of inflammation within the vertebral bodies, meninges, spinal cord and nerve roots.

The characteristic features of tuberculous spondylitis include : Involvement the ventral bone marrow adjacent to the intervertebral disc , subligamentous extension, Disc involvement is relatively limited and late compared with the amount of vertebral body involvement, large paraspinal soft tissue mass which is usually out of proportion to the amount of vertebral body involvement, Rim enhancement around intraosseous or extraosseous abscesses following gadolinium administration and severe vertebral collapse and gibbus deformity.

Pyogenic spondylitis is characterised by: decreased signal of the marrow of two adjacent vertebrae with loss of definition of the intervening end plates on T1-WI, the contiguous and early involvement of the disc space, epidural abscess that typically extends two to three vertebral segments in length .

Brucellosis is characterized by intact vertebral architecture inspite of evidence of diffuse vertebral osteomyelitis, disc space involvement, minimal associated paraspinal soft tissue involvement and no gibbous deformity.