Spinal Brucellosis: Rare But Should Not Be Forgotten

Nik Hassan N, Nurul Ain MI, Juhara H, Azizul Akram S, Johaimey J

Orthopaedic Department, HUSM Kampus Kesihatan, 15400 Kubang Kerian
Radiology Department, HUSM Kampus Kesihatan, 15400 Kubang Kerian

INTRODUCTION:
Brucellosis, a zoonotic infection caused by slow-growing Brucella species. Lumbar vertebrae are the most common musculoskeletal site affected. We report a case of spinal brucellosis that was initially treated as pyogenic and tuberculous spondylodiscitis when the Brucella is the culprit.

CASE REPORT:
A 53 year old lady presented with fever, non-mechanical low back pain and lower limb radiculopathy for one week duration. Her body temperatures were ranging from 38-39 degree with a vague swelling at the back and no neurological deficit. Straight leg raising test was negative.
Total white count was 19x10^9/L, C - reactive protein was 180mg/dL and Erythrocyte Sedimentation Rate was 90mm/hr. Mantoux test was negative and initial blood culture showed Gram negative Bacilli.
X-ray showed sclerosis and irregularities of the L5 end plate and reduced disc height at L4/L5 level (figure1). MRI demonstrated abnormal signal intensities of inferior endplate of L4, L5 superior end plate and posterior longitudinal ligament (figure 2)
She was treated with IV Cloxacillin and anti-TB was added at day 5 as clinical symptoms persist. The blood culture was ready at day 10 revealed Brucella melitensis. Retrospectively we missed the history of consuming dairy products from a local farmer three weeks prior to the onset of symptoms.
IV doxycycline and gentamicin were started for 10 days with oral Rifampicin, as part of anti-TB regime given earlier, for total of 12 weeks. She was recovered with normalized biochemical parameters.

DISCUSSION:
Brucellosis is a systemic disease and resides particularly in the reticuloendothelial system. The diagnosis is confirmed by blood culture result. Pedro Pons’ sign, known as anterior superior end erosion, which occurs together with rounding of the vertebral end is a characteristic radiologic finding of brucellar spondylitis. World Health Organization (WHO) recommended the use of oral tetracycline 500mg QID or oral doxycycline 100mg BD combine with aminoglycosides, IV/IM gentamycin 5mg/kg/day for 7 to 10 days.

CONCLUSION:
Diagnosing spinal brucellosis is often delayed but appropriate treatment will offer good prognosis and better outcome.

REFERENCES: