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Septic arthritis caused by *Burkholderia pseudomallei*

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Abstract
Introduction: Melioidosis is caused by *Burkholderia pseudomallei*. Septic arthritis is rare but well-recognized manifestation of this disease.
Case presentation: We report a case of Melioidosis presenting with septic arthritis. The patient responded well to prolonged treatment with intravenous/oral antibiotic and recovered.
Conclusion: It is important to keep in mind Melioidosis as a rare, but curable cause of septic arthritis.
Key words: Melioidosis, *Burkholderia pseudomallei,* Septic arthritis, Diabetes, Pneumonia, Antibiotic

Introduction: Melioidosis is an infection caused by *Burkholderia pseudomallei*[1]. The disease is known as a remarkable imitator due to the wide and variable clinical spectrum of its manifestations[2-4]. Septic arthritis[5] is rare but well-recognized manifestation of this disease.

Case Report: We report a case of Melioidosis in a 38 year old male presenting with septic arthritis of the right knee and leg for 3 weeks and fever for 4 weeks. This was preceded by injury to right thigh in June 2013 and pnemonitis in June 2014.

Investigations: Physical examination showed swelling and tenderness of the right knee joint, right tibia and ankle. Left knee and other big joints were normal. It was also revealed the absence of anemia, cyanosis, clubbing, jaundice; fever (99 degree F), Pulse rate 118/min, and B.P. 130/70 mmHg. Complete blood count showed neutrophilic leukocytosis, raised ESR (100 mm/1st hour), normal blood sugar, urea, creatinine, lipid profile, liver function tests and negative HbsAg and HIV testing. Sputum, and synovial fluid aspirated from right knee joint were negative for AFB; LFT was unremarkable. St. X-ray Chest (PA) showed multiple opacities, suggesting pneumonitis. MRI (right knee-joint) revealed oedema in sub-cutaneous planes and muscles around knee joint. Effusion in the joint was distending the suprapatellar bursa. CT whole abdomen revealed no abnormality in the liver, gall bladder and common bile duct, while the spleen was enlarged and there was mild ascites. CT of the thorax showed multiple pulmonary nodules in the lungs, cavitations, few mediastinal nodes, splenomegaly with multiple hypodence nodules and subpleural atelectasis. The fluid from the affected joint was drained under general anesthesia and culture of the fluid yielded pure growth of *Burkholderia pseudomallei*

Diagnosis: Septic arthritis caused by *Burkholderia pseudomallei*.

Treatment: The patient was treated with antibiotic for about 3 months.

Outcome and follow up: The patient responded well to such treatment and was sent home in a stable condition. Follow-up after 3 weeks as outpatient reveled that the patient has recovered completely, but the affected joint was slightly immobile. He was advised to do quadriceps muscle exercise.

Discussion: Risk factors for Melioidosis include diabetes, alcoholism, renal disease, thalasaemia, malignancy, steroid therapy, iron overload and tuberculosis. Pneumonia[6] is the commonest clinical presentation. Rarely patients have manifestations of pneumonia with septic arthritis of big joints. However, the case under report had pneumonitis, but no diabetes. Melioidosis can be a fatal disease and is endemic in northeastern Thailand and northern Australia.

Melioidosis is not endemic in the Indian subcontinent, but it has been described in travelers from Bangladesh. In India[7-10], most cases have so far been reported from the southern states like Kerala and Tamil Nadu. Isolated cases have also been reported from eastern and northeastern parts of India. No such cases have been reported from Kolkata, India. Although not so uncommon in India but early and correct diagnosis and institution of proper antimicrobial therapy are important in order to reduce morbidity and mortality and have a favourable outcome.

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Ethical Statement: This case was investigated and treated according to the regular diagnostic procedure and treatment.