Melioidosis is caused by *Burkholderia pseudomallei*, an aerobic gram-negative bacillus belonging to the Pseudomonas family. This infection is not uncommon in Southeast Asia and Australia. In recent years melioidosis has been increasingly reported from India. The clinical features are protean and may include genitourinary manifestations. In these patients’, diagnosis can be missed if awareness is low. Mortality associated with this infection is high and can be minimized by instituting early and specific antimicrobial therapy. Therefore diagnosis of this infection assumes importance and can be achieved by aerobic culture on ordinary media.

Since there are not many reports on genitourinary melioidosis and the awareness about this manifestation is low among practicing clinicians and laboratory personnel, we report our experiences with two cases.

**Case History**

**Case 1**
A 36-year-old diabetic (Type I) male from West Bengal, India, on irregular treatment with insulin, presented with persistent high-grade fever of two months duration. He had evening rise of temperature, loss of weight and appetite. He was initially treated for right facio-maxillary abscess in another hospital few weeks ago. Ultrasound abdomen as part of fever workup at his place showed pyelonephritis and hence he was referred to the Urology department. On examination he had nontender hepatosplenomegaly and a 10 x 10 mm boggy swelling in the right lobe of the prostate by digital rectal examination. Routine investigations revealed pyuria, leucocytosis with raised ESR. Hence prompt diagnosis was warranted. We report unusual presentations of urinary tract melioidosis in two diabetic men.
deteriorated rapidly and died the following day. Both blood and urine cultures subsequently grew *B. pseudomallei*.

**Discussion**

Melioidosis is increasingly being recognized as an important cause of life-threatening infections in India. It is most commonly seen in adults with conditions like diabetes mellitus, renal disease and in those who are immunocompromised. Of these, diabetes is the most common risk factor as was seen in our two patients. Clinical manifestations range from localized infection to acute pneumonia and fulminant sepsis.

In a series from Queensland Australia, genitourinary melioidosis occurred in 11% of cases of what? Manifestations included pyelonephritis, perinephric abscess, epididymoorchitis, scrotal abscess and most commonly prostatitis or prostatic abscess. None of the patients in their series had diabetes. Although diabetes is a known risk factor, there are only few reports of genitourinary melioidosis in diabetes. Tan et al reported five cases of melioidotic prostatic abscess with diabetes. Both our patients were diabetic and had prostatic involvement. Melioidosis was not initially considered in the differential diagnosis and this could have led to delay in initiating appropriate therapy in our series.

Ceftazidime alone or a combination of clavulanate and amoxicillin is the treatment of choice. In localized infections doxycycline can be used in combination with co-trimoxazole. Imipenem and meropenem are safe and effective and can be considered as alternatives to ceftazidime. Since relapse rates are high, antimicrobials are recommended for 12 to 20 weeks. Despite this, relapse occurs in about 10% of cases and hence close follow-up is essential.

Both our patients were from West Bengal. In earlier series also, the increased occurrence of melioidosis from this area has been noted. Therefore, it is necessary to create awareness about the distribution of this illness among clinical practitioners. It is possible that our first patient had a parotid abscess due to *B. pseudomallei*, which was not properly managed in the first hospital he visited. Hematogenous seeding could be the reason for the foci in liver, spleen, adrenals, prostate and the kidney. In the second patient, the infection probably started as a UTI, which subsequently developed into fulminant sepsis triggered by the catheter removal. Cases with *B. pseudomallei* in blood have high mortality. Similarly, it has been shown that the presence of *B. pseudomallei* in urine during a systemic infection is associated with poor prognosis. Positive blood and urine cultures for *B. pseudomallei* in the second patient explain the rapid deterioration in the clinical course.

Urinary tract infection is common in diabetics and *B. pseudomallei* infection can be overlooked in routine cultures as contaminant. Therefore a high index of suspicion is required to diagnose melioidosis. We suggest that melioidosis should be considered in the differential diagnosis in diabetic men with UTI when there is no response to routine antibiotics, especially if they come from areas where melioidosis is prevalent.
References


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Announcement

Free access to the Cochrane Library for everyone in India

Anyone in India with access to the Internet now has complimentary access to reliable, up-to-date evidence on health care interventions from The Cochrane Library, thanks to sponsorship provided by the Indian Council of Medical Research (ICMR) that recently signed a three-year contract for a national subscription with the publishers, John Wiley & Sons.

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