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Burkholderia cepacia: An uncommon cause of bilateral primary psoas abscesses in a patient with a Pott spine that cannot be ignored

Burkholderia cepacia is a Gram-negative, non-fermentative, aerobic, motile, non-spore-forming bacillus.¹ It is frequently found as a saprophyte in soil, water and other damp environments and is an opportunistic pathogen in patients with underlying medical disorders.^{2,3} Extrapulmonary manifestations are rare and small number of cases of abscess due to this organism have been described in the 'at-risk' group.^{1,4-7} Infections are difficult to treat as this pathogen is inherently resistant to multiple antibiotics. Till date, there are no reports of psoas abscess caused by *B. cepacia* from India. We report a rare case of primary, bilateral large psoas abscesses due to *B. cepacia* in a patient with tuberculosis of the spine.

A 60-year-old man with diabetes and hypertension presented to the neurosurgical outpatient department of our hospital for evaluation of fever of unknown origin. A detailed history revealed tuberculosis of the spine and that he was on antitubercular treatment for 4 months. He had a history of bilateral lower limb weakness for 4 months and bladder/bowel dysfunction for 1 month prior to his present complaint, following which he was started on antitubercular therapy. He had been complaining of fever for 3 weeks before the referral despite receiving intravenous antibiotics at a private hospital. His physical examination at our institute showed that he was febrile (101 °F) and had a pulse rate of 100/minute. Laboratory data revealed a total leukocyte count of 16 000/cmm with 80% polymorphonuclear leucocytes. A blood culture done at this time was sterile. No inflammatory diseases in the bowel were identified by radiographic and endoscopic examination. Contrast-enhanced magnetic resonance imaging (MRI) of the lumbosacral spine showed large bilateral psoas

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abscesses: the right measuring 10.7×5.3×6.6 cm and the left 14.7×7.7×7.9 cm. Bilateral CT-guided percutaneous drainage of the abscesses was done and pigtail catheters were left in situ. A pus sample was sent for microbiological investigations. Ziehl-Neelsen stain did not show acid-fast bacilli and GeneXpert was negative for Mycobacterium tuberculosis. Non-fermentative, catalase-positive, oxidase-positive Gram-negative bacilli with wrinkled, sticky yellow colonies were isolated from the pus sample. This non-fermentative Gram-negative bacillus was identified as B. cepacia by MALDI-TOF mass spectrometry using the bioMérieux VITEK MS system (IVD database version 2.0). The isolate was sensitive to ceftazidime, ciprofloxacin, meropenem and cotrimoxazole. He was treated with oral ciprofloxacin (600 mg twice a day) for 3 weeks. A week after insertion of the pigtail catheters, there was no pus collection and the catheters were removed. On follow-up, he was doing well and had no evidence of recurrence of infection on repeat MRI imaging.

Our patient has several rare and interesting features. These include the primary nature of the abscesses, their bilateral location, large size, an immunocompromised host and infection with *B. cepacia*. Imaging (MRI or CT scan) could establish the diagnosis and define the extent of the abscesses. Percutaneous drainage along with appropriate antimicrobial therapy can be effectively used in the management of such cases. Thus, early and accurate identification of this organism is required for appropriate treatment as it is frequently misidentified as *Pseudomonas* species. This may lead to prescribing inappropriate antimicrobial therapy since this pathogen is inherently resistant to multiple antibiotics. Furthermore, with the increase in interventional procedures and the use of MALDI-TOF-MS-based systems, this pathogen is likely to become more frequent as a nosocomial pathogen. We could not determine the source of *B. cepacia* in this case.

Our report is aimed to draw attention to the accurate identification of *B. cepacia* in clinical samples, upon the isolation and identification in this case in the microbiology laboratory of a tertiary care hospital.

Conflicts of interest. None declared

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