Sphingomonas paucimobilis urinary tract infection in an immunecompetent patient: A case report

Sir,

Urinary tract infection (UTI) is mostly caused by members of the *Enterobacteriaceae* family. *Escherichia coli* is the most common urinary pathogen of community-acquired infection accounting approximately 80% of infection. Whereas, in the hospital acquired UTI *E. coli* accounts approximately 50% and the rest by other member of *Enterobacteriaceae*, *Enterococcus*, *Staphylococcus* and nonfermenting Gram-negative bacilli.[1] We report an unusual organism from the urine of immunocompetent patient.

A 58-year-old male patient reported in medicine outpatient department with history of burning micturition and dysuria since last 10 days. He had visited to a private hospital and was put on norfloxacin and amoxiclavulanic acid for 7 days. However, there was no relief of symptoms. There was a history of retention of urine for which he was catheterized. Per rectal examination revealed benign prostate hypertrophy. Urine was sent for microscopic examination and culture. On microscopic examination of urine showed field full of pus cells and on culture nonlactose fermenting colonies on cystine lactose electrolyte deficient media after 24 h of incubation were seen. Isolate was identified as *Sphingomonas paucimobilis* by standard biochemical tests and Vitek Systems, (bioMerieux). Antibiotic sensitivity was performed as per CLSI guidelines[2] and it was found sensitiveto cotrimoxazole and resistant to norfloxacin, levofloxacin, ampicillin/sulbactum, amikacin, ceftazidimeceftazidim/clavulinic acid, Piperacillin/tazobactum, and imipenum. Other laboratory investigations revealed hemoglobin: 10.2 g/dl and total leukocyte count: 13,000/mm^3 with 75% neutrophils, 25% lymphocytes. His random and fasting blood sugar levels were 120 mg/dl and 90 mg/dl, respectively.

Sphingomonas paucimobilis, a nonfermenting Gram-negative bacillus, is regarded as of minor clinical significance; however, many instances of infections with this organism can be found in the literature. Clinical syndrome associated with *S. paucimobilis* include primary bacteraemia, intravascular catheter infections, peritoneal dialysis-associated peritonitis, UTI, biliary tract infection, ventilator-associated pneumonia, meningitis, etc.[3,4] The origin of *S. paucimobilis* nosocomial infections may be endogenous (i.e., they may stem from previous colonization of the patient) or environmental (via the implantation of various indwellClustering of cases of nosocomial infection caused by a indwelling devices).[5]

Sphingomonas paucimobilis causing UTI is a rarely encountered entity. In the present study, patient had definite UTI and had undergone the catheterization. It is suggested that organism may have colonized the perianal area and subsequently caused ascending infection to the urinary tractor it gain entry during cauterization. This case highlights the importance of *S. paucimobilis* as a cause of UTI. It should be considered as a pathogen capable of causing UTI. This emerging pathogen with low virulence should be dealt more cautiously and should not just regarded as contaminate.

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