Pseudomonas mendocina Urinary Tract Infection: A Case Report and Literature Review

Pseudomonas mendocina is gram-negative, aerobic bacillus, belonging in the family Pseudomonadaceae. P. mendocina can be found in soil and water. The first P. mendocina-related infection was reported in 1992. Although a rare cause of infections, P. mendocina has been known to cause severe infections that require intensive treatments. In the U.S., there have been four documented cases of P. mendocina-related infections, including three reports of bacteremia and one of infective endocarditis. We present the first case of urinary tract infection caused by P. mendocina.

An 83-year-old male with past medical history of diabetes, hypertension, coronary artery disease, and prostate cancer with bone metastases presented with fever, fatigue, dysuria, and hematuria of 1-week. He was found to have a complicated urinary tract infection with incidental asymptomatic COVID-19 infection on admission. The patient was empirically treated with ceftriaxone and switched to cefepime for broader coverage on day two of hospitalization while awaiting urine culture results. Subsequent urine culture reported presence of Pseudomonas mendocina with resistance only to fluoroquinolones. Ceftriaxone was reinstated. The patient was successfully treated with a 7-day course of ceftriaxone (day 1-3, day 6-7) and cefepime (day 4-5) but continued to remain inpatient for a later symptomatic COVID-19 pneumonia with discharge on day 15.

Twenty documented cases of P. mendocina-related infections have been reported worldwide. The majority of P. mendocina infections present as skin and soft tissue infections, infective endocarditis, meningitis, and bacteremia. Our case report is the first documented case of urinary tract infection caused by P. mendocina and second to report P. mendocina with resistance to fluoroquinolones. This report is the fifth documented case of P. mendocina-related infections in the United States, contributing to the growing literature regarding P. mendocina-related infections.