

Kocuria rosea Meningitis

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To the Editor:

MENINGITIS ASSOCIATED WITH gram-positive cocci other than staphylococci, enterococci, or pneumococci is rare [1,2]. We describe a case of *Kocuria rosea* meningitis.

A 58-year old female patient was admitted to the emergency service of our hospital with complaints of fever and headache. She had been operated on for a cranial frontal mass in 1980 and had a ventriculoperitoneal shunt (VPS) inserted in 1999. Physical examination was unremarkable. Glasgow Coma Scale score (GCS) was 9 points. Her blood leukocyte count was 8,400/mm³, and her serum C-reactive protein concentration was 0.6 mg/dL. Lumbar puncture revealed no leukocytes in the cerebrospinal fluid (CSF), and the bacteriologic culture yielded no pathogens. Extra-ventricular drainage (EVD) was started. After ten days, the EVD was removed, and another VPS was inserted. The CSF sample harvested during shunt insertion revealed 30 leukocytes/mm³, and bacteriologic culture was performed on 5% sheep blood agar, eosin methylene blue agar, chocolate agar, and Sabouraud dextrose agar. The plates were incubated at 35°C for 18h. Gram-positive cocci arranged in tetrads that were non-hemolytic, catalase-positive, coagulase-negative, and non-motile were isolated. The isolate was identified as *K. rosea* by Vitek 2 (bioMérieux Inc., Mercy L'Etoile, France) and matrix-assisted laser desorption ionization time-of-flight mass spectrometry with Vitek MS (bioMérieux). The strain was susceptible to tetracycline, vancomycin, teicoplanin, tigecycline, and linezolid and resistant to penicillin, cotrimoxazole, rifampin, levofloxacin, gentamicin, clindamycin, erythromycin, and chloramphenicol by the disc diffusion method performed according to the Clinical and Laboratory Standards Institute (CLSI) guidelines and interpreted according to CLSI standards for staphylococci. The CSF sampling was repeated when the culture results were learned, revealing > 1,000 leukocytes/mm³, glucose concentration 20 mg/L, and concomitant blood glucose concentration 102 mg/dL. Empiric ceftazidime 3 g q 8h and vancomycin 1 g q 6h was started. Bacteriologic culture again revealed *K. rosea*. Cef-

tazidime was stopped, and vancomycin monotherapy was continued. On the 11th day of vancomycin, the drug was switched to linezolid 600 mg q 12 h because of an increase in γ -glutamyltransferase to 401 U/L. She was discharged with no medications after 17 d of antibiotic therapy with a GCS of 15 points. On follow-up at one year, there had been no relapse.

There are papers reporting infections by *Kocuria* spp., mostly in compromised hosts with serious underlying conditions [3–5]. The case described here, which, to our knowledge is the first case of *K. rosea* meningitis to be described, was treated successfully with vancomycin followed by linezolid, as in the previous reports.

References

1. Bardak-Ozdemir S, Sipahi OR. Approach to hospital-acquired and methicillin-resistant *Staphylococcus aureus* meningitis. *Mediterr J Infect Microb Antimicrob* 2013;2:1.
2. Arda B, Sipahi OR, Atalay S, et al. Pooled analysis of 2,408 cases of acute adult purulent meningitis from Turkey. *Med Princ Pract* 2008;17:76–79.
3. Savini V, Catavittello C, Masciarelli G, et al. Drug sensitivity and clinical impact of members of the genus *Kocuria*. *J Med Microbiol* 2010;59(Pt 12):1395–1402.
4. Altuntas F, Yildiz O, Eser B, et al. Catheter-related bacteremia due to *Kocuria rosea* in a patient undergoing peripheral blood stem cell transplantation. *BMC Infect Dis* 2004; 22(4[1]):62.
5. Kaya KE, Kurtoğlu Y, Cesur S, et al. [Peritonitis due to *Kocuria rosea* in a continuous ambulatory peritoneal dialysis case] (Bul). *Mikrobiyol Bul* 2009;43:335–337.

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