Multi-Resistant Enterococci and Morganella Morganii: A Rare Cause of Complicated Keratitis

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An eighty-five-year-old female is a known case of hypertension, dyslipidemia, chronic renal failure and diabetes mellitus type 2. She had gastroenteritis, pain and redness in right (blind) eye with corneal decompensation, scarring and right-eye corneal ulcer with hypopyon. Corneal scrapings sent for culture report revealed growth of Morganella Morganii and Enterococci. Corneal ulcer was successfully treated with topical and oral antibiotics.


Infection of the eye with Enterococci is a rare condition, and it is extremely rare as a complication of gastroenteritis.

Enterococci are Gram-positive facultative anaerobes and have been documented as a cause of infective endocarditis, burn wound sepsis, meningitis, urinary tract infections and nosocomial infections. Ocular infections caused by Enterococci have been reported to cause endophthalmitis after cataract extraction, blebitis, keratitis after penetrating keratoplasty, seton implant and pupilloplasty1-8. Isolated keratitis and conjunctivitis were also reported9-12.

Morganella Morganii are Gram-negative bacilli belonging to the family Enterobacteriaceae, which is a pathogen of urinary tract infections13. It is found in the environment and as commensals in the intestines of human beings14. Our patient with corneal ulcer was culture positive to both organisms.

The aim of this report is to create awareness among clinicians and microbiologists that Enterococci and Morganella morganii, although uncommon, could cause complicated infections of the eye; a high index of suspicion is required.

THE CASE

An eighty-five-year-old female presented with preexisting conditions of benign essential hypertension, dyslipidemia, chronic renal failure and diabetes mellitus type 2. She had gastroenteritis, pain and redness in right (blind) eye with corneal decompensation, scarring and right-eye corneal ulcer with hypopyon. Corneal scrapings sent for culture report revealed growth of Morganella Morganii and Enterococci. Corneal ulcer was successfully treated with topical and oral antibiotics.

She was diagnosed as right eye keratitis (corneal ulcer). No hypopyon was noted. Eye swab and corneal scraping was sent for culture and sensitivity. An empirical treatment including topical Gatifloxacin eye drops every hour with erythromycin ointment every six hours was initiated. The following day, hypopyon of 1 mm was noted. Vancomycin 25 mg/ml eye drops and fortified Ceftazidime 50 mg/ml eye drops were added every hour as progressive central corneal ulcer was seen. Oral Moxifloxacin 400 mg once a day was started as prophylaxis. Initially, Gram stain was negative, and PAS stain showed fungal filaments. Voriconazole, 1% eye drops every six hours was started. The culture revealed moderate growth of Morganella morganii and Enterococci, see tables 1 and 2. Eleven days following treatment, the corneal epithelial defect was reduced to 1 mm and hypopyon disappeared, see figure 2.

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