To date, *Eikenella corrodens*, a fastidious, gram-negative rod, has not been recognized as a causative agent of urinary tract infections. Until now the organism has been isolated from infective endocarditis, abdominal, joint, and bone infections (3, 7), human bite wounds (9), genital ulcers after traumatic orogenital contact (5, 6), and other sites (3, 7, 10). *E. corrodens* is part of the human oropharyngeal and probably intestinal flora (8, 10).

In spring 2006, we encountered the case of an 83-year-old female with a urinary tract infection due to *E. corrodens*. The patient was referred to the Hospital of Sursee (Switzerland) with general malaise, abdominal pain, burning during micturition, and pollakiuria. Chronic lymphatic leukemia had been diagnosed in 2003. Prior to admission, the patient had a 2-year history of recurrent urinary tract infections. However, no infective agent could be isolated from her urine. There was also a history of recurrent anal prolapse and sigmoidal diverticulitis. Analysis of catheterized spot urine showed an alkaline pH of 9.0, no nitrite, protein of 1 g/liter, more than 500 leukocytes per μl, and large quantities of erythrocytes and bacteria.

On cystine-lactose-electrolyte-deficient agar (UrinAX CL/MCE; AxonLab AG, Baden, Switzerland) hypochlorite-smelling colonies of 10^5 CFU/ml were detected, together with a few colonies (10^3 CFU/ml) of *Aerococcus urinae*. The latter were considered contaminants after *Aerococcus urinae* had been excluded. Identification of the gram-negative rods yielded *Eikenella corrodens*. On sheep blood agar, pit-forming colonies were detected. Microscopy revealed slender, gram-negative rods which did not grow on MacConkey agar, were nonfermentative on triple sugar iron agar (group IV), and were positive for oxidase, nitrate reductase, and ornithine decarboxylase. The rods were nonmotile; exhibited negative results for catalase, urease, and indole; and did not ferment glucose, sucrose, and maltose. Since no standards for the disk diffusion assay are available from the Clinical and Laboratory Standards Institute (CLSI) for this organism, the antibiogram was read visually and large zones of inhibition were observed with penicillin, cefalotin, cefuroxime, cefotixin, ceftriaxone, cefazidime, ciprofloxacin, gentamicin, trimethoprim-sulfamethoxazole, and colistin. When an Etest was used (AB Biodisk, Solna, Sweden), the MICs of penicillin and ciprofloxacin were found to be 0.75 mg/liter and 0.012 mg/liter, respectively. Biodisk, Solna, Sweden), the MICs of penicillin and ciprofloxacin were found to be 0.75 mg/liter and 0.012 mg/liter, respectively. When an Etest was used (AB Biodisk, Solna, Sweden), the MICs of penicillin and ciprofloxacin were found to be 0.75 mg/liter and 0.012 mg/liter, respectively.

Intravenous ciprofloxacin (400 mg, i.v., 2 times daily) was started, and a second urine specimen collected from a permanent catheter 1 week after the end of therapy, was positive for *E. corrodens*. DNA was extracted from the antibiogram was read visually and large zones of inhibition were observed with penicillin, cefalotin, cefuroxime, cefotixin, ceftriaxone, cefazidime, ciprofloxacin, gentamicin, trimethoprim-sulfamethoxazole, and colistin. When an Etest was used (AB Biodisk, Solna, Sweden), the MICs of penicillin and ciprofloxacin were found to be 0.75 mg/liter and 0.012 mg/liter, respectively.

The organism was mainly found in mixed infections with aerobic and anaerobic bacteria, especially accompanying oral flora (1, 7, 8). There is little doubt that *E. corrodens* represents an opportunistic pathogen (3, 7), especially in combination with immunosuppressive conditions (2, 4, 7). Nevertheless, *E. corrodens*’ flimsy and often delayed growth may lead to its underdetection. Our patient had two risk factors which may have contributed to susceptibility to infection: (i) recurrent anal prolapse may promote colonization of the lower urinary tract with this intestinal commensal microorganism and (ii) chronic lymphatic leukemia may have favored progression to infection. Thus, several facts point to a causative role of *E. corrodens* in the reported immunocompromised patient’s urinary tract infection: (i) there were clinical and laboratory signs of lower urinary tract infection, (ii) *E. corrodens* was the prevailing microorganism recovered from an appropriate urine specimen, (iii) anal prolapse can be considered a risk factor for colonization and infection of the urinary tract by an intestinal commensal, and (iv) there was a complete clinical and bacteriological recovery from the urinary tract infection after appropriate antibiotic therapy.

This report demonstrates that *E. corrodens* is able to cause urinary tract infections, especially when additional risk factors are present.

REFERENCES


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