mission by breast milk and sexual transmission are no longer risk factors for this population. Moreover, drug abuse and sexual promiscuity are rare in the Mashhadi population because these individuals are brought up in Orthodox Jewish households.

A possible explanation for the rise in the seroprevalence of HTLV-I infection is that individuals may be exposed to an agent of low virulence over their lifetimes, possibly by coming in contact with salivary secretions (HTLV-I has been detected in saliva) [9, 10]. The age-dependent increase in the incidence of HTLV-I infection may suggest that horizontal transmission is predominant in populations such as the Mashhadi and that transmission via salivary secretions may be a significant factor. Our results support the possibility that HTLV-I is a dormant infection and that detection of antibodies is delayed as the rate of infection increases with age. This increase can be explained by the fact that the elderly have increased susceptibility to infections because of changes in lifestyle and nutrition or because of a decrease in immunologic functions. These factors as well as poor oral hygiene (which is common among the elderly) may contribute to cross-infectivity of HTLV-I through the salivary route.

References


Clostridium perfringens as a Cause of Infectious Endocarditis in a Patient with a Vascular Prosthesis

A 31-year-old man with systemic arterial hypertension complained of progressive dyspnea due to myocardial dysfunction. In 1982 Sapico and Sarma [3] reported seven cases of IE due to anaerobic and microaerophilic bacteria; they found an incidence of 10.6%. Kolander et al. [4] reported one case of Clostridium perfringens. A sample of each vial was inoculated into vials (BACTEC Plus, Becton Dickinson, Sparks, MD) under aerobic and anaerobic conditions. A two-dimensional echocardiogram showed a large vegetation on the aortic wall at the junction with the Dacron prosthesis. A CT of the head revealed an ischemic right temporal lesion.

After 24 hours of incubation, the BACTEC NR 660 System (Becton Dickinson) revealed that the blood cultures were positive. Direct examination of the vials showed gram-positive rods without spores. A sample of each vial was inoculated onto two blood agar plates and incubated under aerobic and anaerobic conditions. Growth occurred after 48 hours only in the anaerobic plates; colonies with double zones of hemolysis were present. Biochemical identification was performed by means of the VITEK ANI System (bioMérieux Vitek, Hazelwood, MO). The organism was identified as C. perfringens (99% specificity), and additional tests, like those of Stanford's type A chronic aortic dissection and severe aortic insufficiency. Preoperative clinical and laboratory evaluation demonstrated only signs of cardiac insufficiency without any evidence of active infection. He had not undergone any surgical procedure previously. Seven days after admission, a Dacron prosthesis was interpositioned at the ascending aorta, and the aortic valve was suspended. The surgery lasted 305 minutes, with 135 minutes of extracorporeal circulation. Antimicrobial prophylaxis with cefuroxime was administered for 48 hours before the operation.

On the first postoperative day, he became febrile. On the sixth postoperative day, a pericardial rub was detected, and therapy with diclofenac sodium (50 mg twice a day) was started. He became afibrile within 24 hours. All blood cultures were negative at this time. Twenty-one days later he complained of fever and left-side hemiplegia. By this time three blood samples were drawn and inoculated into vials (BACTEC Plus, Becton Dickinson, Sparks, MD) under aerobic and anaerobic conditions. A two-dimensional echocardiogram showed a large vegetation on the aortic wall at the junction with the Dacron prosthesis. A CT of the head revealed an ischemic right front temporal lesion.

C. perfringens was the most common species involved. We report a case of prosthetic valve IE due to C. perfringens. A two-dimensional echocardiogram showed a large vegetation on the aortic wall at the junction with the Dacron prosthesis. A CT of the head revealed an ischemic right front temporal lesion.

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detecting lecitinase and urease production, were done to confirm the result.

Although botulism, tetanus, and other clostridial diseases may arise exogenously, the source of most clostridial infections is the patient's own flora, and endogenous infections involving clostridia require special circumstances for the development of disease [5].

Penicillin G has excellent activity against most strains of *C. perfringens* and is the drug of choice for treatment of *C. perfringens* infections. We performed in vitro susceptibility testing by means of the E-test (AB BIODISK, Solna, Sweden), and the following MICs were obtained: penicillin G, 0.064 μg/mL; metronidazole, 1.0 μg/mL; and imipenem, 0.125 μg/mL. These MICs are below the breakpoint values (penicillin G, 4.0 μg/mL; metronidazole, 16.0 μg/mL; and imipenem, 8.0 μg/mL).

Our patient received a 6-week treatment course of penicillin G (12–24 million U/day) at the time of his discharge, laboratory and clinical findings were normal, except for hemiplegia. Evaluation 6 months after discharge did not reveal any complaints or physical findings except for hemiplegia. The principal aspects of this case were the absence of active infection during the preoperative period and the precocity of the manifestations. The possibility of contamination of the prosthetic material cannot be ruled out. Despite the rarity of anaerobic bacteria as causative agents of prosthetic valve IE, blood cultures under anaerobic conditions should always be considered as diagnostic tools for this infection.

**Development of *Aeromonas hydrophila* Bacteremia in a Patient Recovering from Cholera**

*Aeromonas* bacteremia most commonly occurs in patients with underlying medical conditions, such as cirrhosis, hematologic malignancies, and solid tumors [1]. We report a case of *Aeromonas hydrophila* bacteremia in a previously healthy woman who was recovering from cholera in the hospital.

A 24-year-old previously healthy Malay woman was admitted to the hospital because of a 3-day history of watery diarrhea of increasing frequency. On the day of admission, she reported episodes of diarrhea every 15 minutes and had vomited three times. She was one of a large number of patients admitted that day who gave a history of eating food prepared by an itinerant food hawker who had been found to be a carrier of *Vibrio cholerae* biotype El Tor Ogawa (serogroup O1). She was not taking any medication.

Physical examination revealed that she was conscious, afebrile, and dehydrated. Her blood pressure was 110/70 mm Hg, and her pulse rate was 90. Chest auscultation and abdominal palpation did not reveal any abnormalities. A full blood cell count was normal. Blood biochemistry analysis disclosed the following abnormal values: urea, 12.6 mmol/L; creatinine, 153 μmol/L; and potassium, 2.4 mmol/L. A clinical diagnosis of cholera was made. Intravenous rehydration with potassium supplementation was commenced, and therapy with oral tetracycline (500 mg four times daily) was started. Approximately 4 hours after admission, a temperature of 37.9°C was recorded, and blood specimens were taken; cultures of these specimens subsequently remained sterile. Four hours later the patient was afebrile. Three stool samples were submitted for culture, and *V. cholerae* were subsequently isolated. The patient remained afebrile, and the frequency of diarrhea decreased; the stools became semiformed.

Over the next 6 days, the patient remained afebrile, and the blood culture isolates were identified as *A. hydrophila* biotype El Tor Ogawa (serogroup O1), which was susceptible to tetracycline, was isolated.

The following day gram-negative bacilli were isolated from both aerobic and anaerobic blood cultures. The patient remained febrile and unwell; therapy with tetracycline was stopped, and administration of intravenous ceftriaxone (3 g once daily) was started. The blood culture isolates were identified as *A. hydrophila* by the criteria described by Janda et al. [2]; disk diffusion testing demonstrated that the isolates were susceptible to ceftriaxone, cefuroxime, gentamicin, and ciprofloxacin and were resistant to ampicillin, ampicillin/sulbactam, co-trimoxazole, and tetracycline.

The patient became afebrile on the fourth day of ceftriaxone therapy, and she was discharged 14 days after admission. One stool sample, taken before the start of ceftriaxone therapy, was examined for the presence of *A. hydrophila* but was found to be negative.

*Aeromonas* bacteremia occurs more commonly in male patients than in female patients and is more often acquired in the community than in the hospital. Most patients with *aeromonas* bacteremia have one of several clinical conditions, including hematologic malignancy, solid tumors, hepatic disease, and traumatic injury, and...