Correspondence

The Medical Letter's Advice for Travelers

Sir—In their recent article, Keystone et al. [1] reviewed Internet and computer-based resources that provide travel health information to infectious disease consultants. *The Medical Letter* is pleased to have been included in this review. We wish, however, to point out that there were errors pertaining to our product, *The Medical Letter's Advice for Travelers* program, in the summary table (table 1) that accompanied the article.

First, the table indicates that our product does not include outbreak information or maps. In fact, our program provides both. Monthly travel news bulletins that summarize outbreak information are posted on *The Medical Letter*'s Web site and on the *Advice for Travelers* Web site (both accessible at http://www.medletter.com/). The program also features a variety of maps, including geographic maps of every country; color maps of disease endemicity by continent, by hemisphere, or worldwide; and maps of specific areas where malaria is endemic in each malarious country. Second, the "Material" row of the table failed to note that *Advice for Travelers* is available online via the Internet. The online version is updated continuously, and the CD-ROM is updated semiannually; these facts were also not made clear. Finally, the cost of *Advice for Travelers* was misquoted. A 1-year subscription to the CD-ROM (a new CD-ROM is published every 6 months), including free access to the online version, is $129, and an online-only subscription is $99.

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Reference

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Clinical Infectious Diseases 2001; 33:1608

Bergeyella zoohelcum Bacteremia after a Dog Bite

Sir—Patients who sustain wounds caused by animal bites have the potential to develop such serious complications as osteomyelitis, septic arthritis, and long-term hand dysfunction. Ninety percent of these bites are from dogs and cats. It is estimated that 3%–18% of dog bites and 28%–80% of cat bites become infected. *Pasteurella* species, including *P. multocida* and *P. septica,* are the isolates most frequently recovered from dog bite wounds. Streptococci, staphylococci, and *Moraxella, Corynebacterium,* and *Neisseria* species are the next most frequently isolated aerobic organisms. Anaerobic isolates are recovered—almost always in mixed culture—from 56% of wounds caused by dog bites [1]. We report the case of a patient who was bitten by a dog and developed bacteremia caused by *Bergeyella zoohelcum.*

Four days after he was bitten by a dog, a 33-year-old man was admitted to the hospital because of fever, pain, erythema, and swelling of the left forearm. The patient's temperature was 39°C, his pulse was 80 beats/min, his rate of respiration was 18 breaths/min, and his blood pressure was 120/80 mm Hg. Physical examination revealed no abnormalities, except with regard to the left forearm, which demonstrated edema, erythema, and an abrasion with a diameter of 1.5 cm. The patient's WBC count was 21,100 cells/mm^3, with 88% neutrophils and 3% band forms. Radiographic examination of the left forearm revealed no fractures or bone abnormalities. Neither a foreign body nor the presence of subcutaneous air was identified. Radiographic examination of the chest revealed normal findings. Blood and wound specimens were obtained for culture, and therapy with iv amoxicillin-clavulanic acid, 1 g q8h, was initiated.

On the second day of hospitalization, the patient was afebrile, and after 3 days of iv antibiotic treatment, pain, erythema, and swelling of his left forearm had decreased substantially. He was discharged on the fourth day of hospitalization and was prescribed a 10-day course of oral amoxicillin-clavulanic acid, 875 mg t.i.d.

Results of testing for *Francisella tularensis, Yersinia enterocolitica, Yersinia pseudotuberculosis,* and *Bartonella henselae* were negative. Culture of wound specimens obtained by use of standard cotton swabs was negative for aerobic and anaerobic bacteria. Blood culture yielded gram-negative bacilli that were susceptible to β-lactams, including penicillin, macrolides, and tetracyclines. According to the taxonomy guidelines of the Centers for Disease Control and Prevention (Atlanta) [2], these microorganisms were biochemically identified as *B. zoohelcum* at the Centro Nacional de Microbiología (Majadahonda, Madrid). Identification of the microorganisms was confirmed by analysis of 95-carbon substrate oxidation (GN Microplate; Biolog Identification System) and by the presence of API 20NE (bióMérieux) profile 0212004.

Bergeyella (formerly *Weeksella*) *zoohelcum* are nonfermentative gram-negative bacilli that grow well on blood agar; however, most strains do not grow on

MacConkey's agar. The organisms test positive for oxidase, catalase, and indole; are nonpigmented; and produce urease [2]. The organisms are a component of the normal oral flora of dogs and other animals, and most clinical isolates are recovered from bite wounds [3]. Although few cases of *B. zoohelcum* bacteremia have been reported in the literature, most cases have been have been associated with leg abscesses [4], septicemia [5], tenosynovitis [6], meningitis [7], and pneumonia [8]. The species is susceptible to β-lactam antibiotics, fluoroquinolones, and chloramphenicol, and it has variable susceptibility to trimethoprim-sulfamethoxazole and tetracycline.

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Clinical Infectious Diseases 2001; 33:1608–9
 1058-4838/2001/3309-0028$03.00

Opportunistic Parasitic Infections of the Intestinal Tract in the Era of Highly Active Antiretroviral Therapy: Is the CD4$^+$ Count So Important?

Sir—Opportunistic parasitic infections of the gastrointestinal tract frequently occur in patients with AIDS. In previous reports [1–3], we have described the epidemiology and clinical characteristics of cryptosporidiosis, microsporidiosis, and isosporiasis among patients with AIDS in our geographic region. However, during the last 3 years, the incidences of these diseases have sharply decreased, mainly because of the introduction of highly active antiretroviral therapy (HAART). Immediately after the introduction of this potent combination therapy, we observed its positive effect on the clearance of parasites in patients with cryptosporidiosis or microsporidiosis [4] who were being treated with antiprotozoal drugs. Currently, these diseases are rarely observed in our center. We describe 5 cases of opportunistic enteric infection (1 case of isosporiasis and 4 cases of cryptosporidiosis) in patients who demonstrated a poor virological and immunological response to HAART.

The 5 patients were 3 men and 2 women aged 32–61 years. Three patients were injection drug addicts, and 2 were sexual partners of HIV-infected patients. All 5 patients had late-stage HIV infection (stage B3 or C3) with very low CD4$^+$ counts (range, 14–95 cells/mm^3) and virus loads of 100,000–540,000 copies/mm^3 (as determined by use of nucleic acid sequence–based amplification).

With regard to treatment, all patients had already received extensive antiretroviral therapy and were experiencing therapy failure (table 1). After the detection of parasites in stool samples obtained from the patients, antiprotozoal therapy was initiated. This treatment resulted in the clinical and microbiological resolution of the infection in all patients except patient 2 (table 1). Patient 2 had a relapse of symptoms after 10 days of treatment; however, the patient admitted to an irregular intake of paromomycin. When paromomycin was administered again, a stable remission of symptoms was observed. All patients were followed up for at least 6 months, and, until now, no relapses have been observed.

Cryptosporidiosis and isosporiasis are infections associated with HIV infection that occur in patients with a low CD4$^+$ lymphocyte count. These opportunistic infections can lead to chronic diarrhea that responds poorly to antimicrobial therapy, and failures or relapses occur frequently. As shown in table 1, the 5 cases we describe all occurred in patients who had experienced multiple failures of drug therapy and had a marked immune deficiency and a very high virus load. Nevertheless, in spite of the severe condition of these patients, antimicrobial therapy resulted in a rapid and definitive clearance of protozoa from their stool.

Therefore, we hypothesize that antiretroviral therapy, even if poorly effective against HIV infection, can exert a certain degree of protection against parasitic diseases. In fact, previous studies [5–6] have demonstrated that microsporidiosis and cryptosporidiosis improve after the initiation of HAART. In addition, a recent report documents remission of microsporidial keratoconjunctivitis in a patient with AIDS who was treated with antiretrovirals, even in the absence of a specific antiprotozoal therapy [7]. The mechanism of this response is not clear, but it might involve IFN-γ, which has been demonstrated to be the major inhibitor of *Cryptosporidium parvum* infection [8, 9]. Therefore, because protease inhibitors increase the production of IFN-γ and IL-2, they could, theoretically, also exert a