

LETTER TO EDITOR

Soft Tissue Abscess due to *Eikenella corrodens* after Human Bite

Bilal Sula¹, Recep Tekin²

¹Department of Dermatology, Faculty of Medicine, Dicle University, Diyarbakır, Turkey

²Department of Infectious Diseases and Clinical Microbiology, Dicle University, Diyarbakır, Turkey

Dear Editor;

Eikenella corrodens is found in oral, gastrointestinal and genitourinary normal flora. *Eikenella* species have been shown to cause serious human infections such as head-neck infection, pulmonary infection, arthritis, endocarditis, intraabdominal infection, pancreatic abscesses and infection after human bite wounds. Although injuries caused by human bites are less than those caused by animal bites, such injuries have higher risk for infection and complication development. The most common clinical case observed after human bites is infections. If the infection that may appear is not treated, it may cause amputation and severe complications, which may result with death. One of the most common agents that cause these infections is *E. corrodens* [1-3]. We reported a rarely case of *E. corrodens* infection after human bite. *J Microbiol Infect Dis* 2016;6(1): 36-37

Thirty two year old male immunocompetent patient referred our hospital due to swelling on the left arm and discharge complaints for two days. In the physical examination, patient's fever was 37.8°C, blood pressure 120/70 mmHg, heartbeat 88/min, and respiration count: 16/min. In his dermatological examination, an ulcerated nodular lesion with erythema, edema, pain and crust existed (Figure 1). It was learned from the medical history that the patient was bitten by a person with schizophrenia. Patient's leukocyte count was 12,800/mm³, sedimentation rate was 53 mm/h, CRP level was 57 mg/dl. Samples were collected for culture and ampicillin/sulbactam 6 g/day was started empirically. In the soft tissue ultrasound, an image corresponding to an abscess with a size of 13x7 mm was detected on the left arm. Abscess drainage was performed. The Gram stain showed granulocytes, but no organisms were detected. An abscess drainage material culture was obtained on day two, grew *E. corrodens* that were identified as a slow growing, gram nega-

tive, immotile, facultative bacillus that grew up well on blood agar in 5% carbon dioxide. *E. corrodens* was sensitive to ampicillin, cefazolin, cefotaxime, ciprofloxacin, gentamicin, and imipenem. The isolate were identified and susceptibility testing by traditional methods and Phoenix 100 BD automated system (Becton Dickinson Diagnostic Systems, Sparks). The patient sustained treatment with ampicillin/sulbactam for 8 days and was released taking treatment with oral amoxicillin-clavulanic acid, 2000 mg/day, for a further week.



Figure 1. The lesion appearance.

Human bite injuries may appear due to human and animal bite. These injuries may cause severe complications [3]. The most important and common complication appeared after the bite is local infections that may be observed by 10% to 50%. It may appear as cellulitis, abscess, tenosynovitis, septic arthritis and osteomyelitis as well as it may result with rare diseases such as endocarditis, meningitis, cerebral abscess, bacteremia, sepsis and DIC (especially in immunosuppressed patients). Human bites may also cause Hepatitis B, C and HIV infections [4,5]. Many patient ignore such injures unless

pain, swelling or purulent efflux appears. Such injuries become more complicated by infection until medical treatment. Pain, sensibility, redness, swelling, purulent discharge, lymphangitis and fever may be observed clinically in bite injury infections [6]. Most of the infections are polymicrobial. Most common agents of infections are *S. viridans*, *S. epidermidis* and *E. corrodens*. *Eikenella corrodens* is detected in 29% of the cultures [2]. It is a commensal bacteria existing in oral and upper respiratory tract of human [7]. It is mostly observed in patients with head and neck cancer, insulin-dependent diabetic patients and intravenous drug users. However, infection may also be observed by inverse bite, fight bite or clenched fist injuries [8].

Treatment for human bites is appropriate local injury care and appropriate antibiotherapy then necessary. The injury site should be cleaned by water and soap or saline solution and necrotic tissues and foreign bodies should be removed from the injury. Immobilization and extremity elevation should be performed the first 48-72 hours. If possible, antibiotherapy should be applied after culture and sensibility tests. For the patients who may be treated as outpatient, the most preferred drug for empirical antibiotherapy, which is effective against almost all pathogens in infections caused by animal and human bites, is ampicillin/sulbactam. Intravenous antibiotherapy should be applied for severe and deeply located infections. Erythromycin, azithromycin, doxycycline, fluorokinolones, cefuroxime, metronidazole and clindamycin are other alternatives for those with penicillin allergy. However, since erythromycin

in resistance of *Pasteurella* and *Eikenella species* lately, azithromycin should be preferred [1-5].

It should be kept in mind that abscess may develop due to *E. corrodens* after human bites and it should be detected and treated immediately. Depending on the location of infection, the treatment is a combination of antibiotics such as ampicillin or penicillin and surgery.

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