

Operation After Human Bit: Case Report
İnsan ısırığı sonrası Operasyon: Olgu Sunumu

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Özet

İnsan ısırıkları, köpek ve kedi ısırıklarından sonra en sık görülen ısırık tipidir. Hayvan ısırıkları ile karşılaştırıldığında, insan ısırıklarında ağız içinde bulunan polimikrobik flora yüzünden ciddi enfeksiyon gelişebilir. Burada on gün önce sol el sırtından ısırılması sonrası elde şişlik, kızarıklık ve titreme yakınmalarıyla acil servisimize başvuran ve apse formasyonu gelişen olgu sunulmuştur.

Anahtar Kelimeler: İnsan, ısırık, apse, tedavi

Abstract

Human bites are the most common type of bite after cat and dog bites. Compared to animal bites, human bites can develop serious infections due to the polymicrobial flora present in the mouth. Here, we present a case who presented to our emergency department with the complaints of swelling, redness and chills in the hand after being bitten on the back of the left hand ten days ago and developed abscess formation.

Key Words: Human, bite, abscess, treatment

Introduction

Human bites are the most common type of bite after cat and dog bites (Aziz et al., 2015). The most common area of these bites is the hand and wrist with a rate of 37.1% (2,3). It has been reported that human oral flora is more dangerous with a high risk of infection (10-50%) due to containing more than 500 bacterial species (4).

Case presentation

A sixteen-year-old male patient, who was bitten on his left hand by his older brother ten days before his admission, was admitted to the adult emergency department with swelling, chills, and chills on the left hand. In the history of the patient, it was learned that he did not apply to any health institution after the bite and did not receive antibiotic treatment. There was no known chronic disease history in his medical history.

In his physical examination, his general condition was good and his consciousness was clear. His body temperature was 37.0 C0, pulse rate: 88, blood pressure: 90/55 mmHg. On the dorsal of the left hand, there were bite marks, about 4.5-5 cm in diameter, in two rings with tooth marks on them. There were 15 cm skin and subcutaneous edema and hyperemia extending from the dorsal of the left hand to the wrist (Figure-1).



Figure-1. Bite marks 4.5-5 cm in diameter with tooth marks on the dorsal of the left hand in two rings.

No additional pathology was found in the skin examination. Peripheral pulses were being taken. In the emergency department, the patient was treated with tetanus prophylaxis and wound cleaning. Antibiotic treatment was started. Routine tests of the patient were requested. In the laboratory tests of the patient: White blood cell count was 39.55 mm³, Hemoglobin 13.5 g / dL, C-reactive protein (CRP) 83.76 mg / L. No pathology was found in other examinations. Direct radiography and superficial soft tissue ultrasonography (USG) were requested for our patient. Skin and subcutaneous edema and cellulitis were detected in the superficial soft tissue USG.

The patient was consulted with orthopedics and, in line with the recommendations, magnetic resonance imaging (MRI) of the left wrist was requested. MRI of the left hand and wrist were detected in the segment of approximately 20 cm extending from the

distal of the left forearm to the wrist and approximately 27 mm in size abscess formation in the anterolateral side of the arm. The patient was admitted to the orthopedic service. Abscess drainage and wound debridement were performed under operating room conditions. The wound culture was taken (Figure-2,3).



Figure-2. In the dorsal of the left hand, purulent discharge was drained under operating room conditions and wound debridement was performed.



Figure-3. The dorsal of the left hand is the final form of the wound

Child infectious diseases were consulted. 4 x1.5 gr intravenous Ampisid treatment was deemed appropriate. Three days later, growth of *Streptococcus Pyogenes* was observed in the wound culture. It was determined that the microorganism that was taken was sensitive to the current antibiotic treatment. Continuation of the treatment was provided. Ten days later, when the clinical and laboratory examinations of the patient were found to be normal, he was discharged after being called to the orthopedic outpatient clinic for control with oral antibiotic treatment.

Discussion

Human-induced bites are mostly seen in men between the ages of 20-30, especially on the fingers, arms and head and neck region. Hand, face and genital area injuries are high-risk areas for serious infections due to their special anatomical structures (2). Human bite injuries have a

higher risk of developing infection (10-50%) compared to animal bites (4,5).

In bite injuries; penetrating and crushing injuries, tendon, joint, bone and vascular tissue penetration injuries, hand, face, foot and genital area injuries, injuries in patients under 2 and over 50 years of age, presence of prosthetic joint and heart valves, delay in a medical intervention (> 12 hours), improper wound cleaning and the presence of additional diseases (Diabetes mellitus, kidney failure, long-term steroid use) are determined risk factors for the development of infection (Patil et al. 2009). The presented case is a case who was bitten on his left hand and admitted to the hospital emergency ten days later.

A wound culture should be obtained before starting treatment in all patients who develop soft tissue infections due to human bites. Gram staining should be done. Empirical antibiotic treatment should be to cover oral flora bacteria (5). In our case, Ampisid 4x1.5 g was started and after wound culture growth, the treatment was continued. Although the factors in soft tissue infections due to human bites are mostly poly-microbial, frequently isolated bacteria; Viridans group streptococci, Streptococci, Staphylococci, Eikenellacorodens, Pasturella species, Moraxella, Corynebacterium and Neisseriaspp and some penicillin-resistant gram-negative basis may cause infection (5).

In our case, the culture was sent and the growth of Streptococcus Pyogenes was detected in the growth, and the treatment was continued because the antibiotic we used was sensitive. In some rare cases, there are insidious examples of

Necrotizing Fasciitis due to human bite injury (6). Necrotizing Fasciitis in its early stage may not be differentiated from clinical findings, cellulitis and other soft tissue infections. However, the fact that the boundaries are unclear and the sensitivity outside the area is in favor of Necrotizing Fasciitis. However, one of the most sensitive symptoms is severe pain disproportionate to the skin lesions seen in each patient (6). Our patient's admission to the emergency room is swelling and redness in the hand. Severe pain did not occur at the first examination and afterward. Our patient, whose treatment was started at the time of application, was discharged with abscess drainage, debridement and appropriate antibiotic treatment on the eleventh day of our hospitalization.

Conclusion

As a result, human bites can cause serious soft tissue infections and complications. Even simple tooth bites that are ignored by the public should evaluate the wound in detail, and the wound should be cleaned on time and with the necessary care. It is very important to initiate appropriate antibiotic therapy. A multidisciplinary approach should be applied to prevent severe soft tissue infection complications.

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