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SEPTIC SYNDROMES CAUSED BY CAT AND DOG BITES

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Animal bite injuries are a public health threat. Bite wounds are the leading cause of injury in the United States and Europe each year, especially for children. Canine bites outnumber feline bites, however feline bites pose the greatest danger for people. Bites of the hands, forearms, neck and head can result in the highest morbidity. Characteristic pathogens causing injuries include oral anaerobes, *P. multocida*, *C. canimorsus*, and MRSA (Methicillin-resistant *Staphylococcus aureus*). Invasive infection can occur with direct inoculation or spreading through the bloodstream. Current, well-planned trials are needed to be used in clinical practice. Preemptive antibiotic treatment after a bite injury is guaranteed for traumas posing a high risk of developing infection. Antibiotics should target aerobic and anaerobic microorganisms that comprise the oral and skin flora.

The results of scientific researches were published in medical online journals “American Family Physician”, “Injury”, “Public Health Reports” and others.

According to the surveys wounds from a dog bite are from 85% to 90% of animal bites and 1% of injury-related visits to the emergency room. Cats are estimated to cause 5% to 15% of bite injuries. The frequency of cat bite injuries reportedly is less than that of dog bite injuries. But the rate of infection from cat bites is considerably higher. It is caused by the mechanism of small-bore deep perforation injuries that are difficult to irrigate, as well as the virulent feline oral flora. Infection happens in about 10% to 15% of dog bites and up to 50% of cat bites. Cat bites occur more commonly in women. These injuries most commonly are sustained on the hand and arm. The first signs of infection develop earlier after feline than canine bites. In the study of patients presenting with cat bite injuries, clinical signals of infection developed within 3 hours after the moment of the bite trauma in more than 50% of cases. One-third of patients required hospitalization and endovenous antibiotic administration. Preemptive early antimicrobial therapy aims to decrease the bacterial burden and prevent contaminated bite injuries from progressing to symptomatic infection.

Therapy of feline and canine bites should combine wound assessment, deep culture, radiography, debridement, wound management, and rabies prophylaxis. Antibiotic treatment should be directed against the anticipated pathogens. Prevention of injuries resulting from animal bites is a public health priority. Pet holders are usually uninformed about the possibility of transmitting of dangerous pathogens from their canine and feline companions.

Health-care providers should explain to pet owners:

- how to give animals proper care and treatment, including prevention of infectious diseases;
- how to understand the physiology of their pets;
- how to behave with cats and dogs to avoid bites;

Clinicians should continue to nurture love for animals, to collect a complete pet history, and to be aware that associated diseases can be prevented through recognition, education, and simple precautions.