Animal Bites & Treatment

In this retrospective study, the medical records of 111 human patients treated by 1 of 3 hand surgeons from the same practice were reviewed. There were 38 males and 73 females. There were 71 dog bites and 40 cat bites. Of the patients bitten by dogs, 20 were male and 51 were female. Of those bitten by cats, 13 were male and 27 were female. The mean age of victims was 50 years for dog bites and 48 years for cat bites. The 2 most common scenarios involved were attempts to separate fighting animals and to aid an injured animal. Nine cat bites and 8 dog bites occurred in a veterinarian, veterinary technician, groomer, K-9 police officer, animal shelter employee, or pet shop owner who was handling the pet. Over 50% of victims were familiar with the animal that bit them. Bites from stray animals were rare. Bites ranged from minor to severe. Two thirds of the victims required hospitalization for antibiotic therapy, and one third required at least 1 surgical procedure mainly for debridement. The severity of the wounds was commonly underestimated, and most victims waited at least a week before seeking medical therapy. Medical costs for 13 patients exceeded $77,000 each. For the other patients, treatment varied according to the severity of the injury but ranged from $1800 (n = 47) to $17,000. The authors estimated that the total medical cost of care for these 111 bites exceeded $1.8 million.

COMMENTARY: Veterinarians are always at risk for being bitten by a patient. In this study, dog bites were more common than cat bites, but the latter were associated with nearly twice the risk for infection. The mean time from injury to seeking medical care by a hand surgeon was almost 8 days, and longer delays were associated with more expensive care and greater risk for complications and permanent damage. Cat bites were particularly problematic because they are small puncture wounds that seal quickly, making drainage difficult. The take-home message, aside from don’t get bitten in the first place, is to seek medical attention for any bite immediately.—Karen A. Moriello, DVM, Diplomate ACVD

Recombinant Distemper Vaccine in Shelter-like Housing

Canine distemper virus (CDV) is still a significant problem in unvaccinated animals and dogs in pet shops, puppy mills, and shelters. This study evaluated the use of a recombinant CDV (rCDV) vaccine as an alternative to a modified live virus (MLV-CDV) vaccine. The study had 2 parts. First, CDV antibody-negative puppies were placed in 4 groups and vaccinated as follows: group 1—rCDV vaccine or MLV-CDV vaccine 1 week before challenge; group 2—rCDV vaccine or MLV-CDV vaccine 15 minutes to 4 hours before challenge; group 3—no vaccine. The puppies were challenged with virulent CDV given via IV route. All the puppies in group 1 remained healthy, with no signs of clinical disease throughout the study. Group 2 puppies developed clinical signs within 14 days of challenge that ranged from mild to moderate and included diarrhea, lethargy, and anorexia. None developed central nervous signs, and all recovered. Group 3 developed severe disease; all died by 21 days after challenge. In the second part of the study, puppies were vaccinated with a vaccine containing rCDV; 4 hours after vaccination, they were exposed to an environment contaminated with CDV by co-housing them with 6 CDV-infected dogs in various stages of clinical disease for 5 days. The vaccinated dogs showed no signs of CDV during the 4 weeks after exposure during which they were followed. For animal welfare reasons, no unvaccinated dogs were placed in this environment. These studies demonstrated that rCDV vaccine protects puppies exposed to CDV even in the face of severe challenge. Also, when administered minutes to hours before natural exposure, puppies were protected. Study sponsored by private and public donors to the University of Wisconsin-Madison Vaccine Research Program. Publication sponsored by Merial Limited, Duluth, Georgia.

COMMENTARY: The information in this study is especially important for animals in high-risk situations, such as shelters. Recombinant CDV vaccine was not available when the American Animal Hospital Association Canine Vaccine Task Force made its first recommendations. The data from this study and studies by one of the authors (RDS) led to a change in the recently updated AAHA Guidelines, and rCDV is now included in the recommendations for CDV.—The Editors