Preventing Ocular Toxocariasis in Humans

http://www.onehealthinitiative.com/

Although 2 ascarid parasites of dogs and cats, Toxocara canis and Toxocara cati, can cause ocular toxocariasis (OT) in humans, it is not common and most often affects young children; however, OT can cause debilitating eye disease, including blindness. People become infected when embryonated infectious eggs are accidentally consumed. Toxocara larvae emerge and migrate throughout the body, causing severe systemic reactions. Children are especially at risk from exposure at playgrounds and sandboxes contaminated by canine and feline feces.

This web-based survey was conducted in collaboration with the American Academy of Ophthalmology (AAO). Surveys were sent to 3020 ophthalmology specialists; 599 (19%) responded. A total of 68 patients were reported newly diagnosed from September 2009 to September 2010. Of the 44 patients for which demographic information was available, median patient age was 8.5 years (range, 1–60 years). Clinical data for 30 patients were available. Of these, 25 of 30 (83%) experienced vision loss and 17 of these patients (68%) had permanent vision loss. A One Health approach is needed to prevent toxocariasis with collaboration of the groups invested in protecting the health of humans, animals, and the environment. Veterinarians can help by controlling Toxocara infection in dogs and cats.

Commentary: Transmission of Toxocara continues to occur in the US, although it is a preventable disease. As stated by the authors, some of the limitations of the survey included the low response rate, possibility of responder bias (respondents with severe cases might be more likely to report the cases), and possibility of selection bias (people with limited access to health care might not have had access to the ophthalmologic subspecialists who responded to the survey). All of these factors could contribute to underreporting of OT cases. As veterinarians, we need to pay more attention to our role in preventing toxocariasis in our patients and reducing the risk for OT in the human population. Further information about toxocariasis can be found at the website cdc.gov/parasites/toxocariasis.

—Patricia Thomblison, DVM, MS


Animal Cruelty: Establishing Burden of Proof

This second of two articles on the fundamentals of forensic veterinary medicine describes the protocol for investigating and reporting cases in which abused animals have died or been euthanized. Forensic postmortem examinations must be performed with utmost care and attention to detail to avoid being open to legal challenge in the courts. Veterinary pathologists in academic, commercial, or government laboratories who have experience with the species in question are best qualified to conduct these examinations. Standard operating procedures are essential to ensure consistency, objectivity, and thoroughness. The written report should use simple language that is understandable to lay persons, with any technical or anatomic terms clearly defined. Adequate precautions must be taken to guard against zoonotic infection or spread of disease during the examination.

Full detail of the preferred methods for collecting, maintaining, and recording the "chain of evidence" is described. All coverings, identifications, wrappings, and accompanying objects should be noted. Next, the cadaver is labeled with a unique identification number, photographed, weighed, measured, and scanned for a microchip. A detailed external examination is performed, followed by radiography and complete internal postmortem examination. Samples are collected for testing as indicated. Photographic documentation is essential and digital images must be properly stored, labeled, and dated. The authors conclude with several common scenarios that might prompt a postmortem forensic investigation.

Commentary: This article provides excellent guidelines on conducting a forensic postmortem examination, covering key findings associated with neglect and blunt force trauma. The authors emphasize important issues to consider for all types of potential legal cases, also appropriately pointing out that pathologists should interpret their findings with consideration for the circumstances of the case. It is critical that postmortem examinations and reports for legal cases be conducted in a manner that withstands scrutiny in the courts. Because formal training in forensic medicine is lacking for veterinarians, this article is a valuable resource for any veterinarian, hospital, or institution that deals with animals.—Melinda Merck, DVM