



A137 A Multidisciplinary Investigation of Chronic Animal Abuse: Contributions From Veterinary Forensics and Forensic Anthropology

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Learning Overview: After attending this presentation, attendees will understand how multidisciplinary collaboration between forensic veterinarians and forensic anthropologists can aid investigations of suspected long-term animal abuse.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by demonstrating that forensic anthropologists can assist forensic veterinarians with analysis of skeletal trauma in suspected cases of chronic animal abuse.

Chronic physical abuse of animals is a concern due to the established link of the progression from animal abuse to inter-human violence. It is well-documented that violence directed toward pets is oftentimes a strong predictor of violence directed toward humans, particularly in single household contexts. In addition, an emerging area of veterinary forensics seeks to differentiate injuries caused by accidents from those termed Non-Accidental Injuries (NAI). Differentiating NAI from accidental injuries may be pivotal for investigations related to suspected cases of animal abuse and subsequent legal proceedings related to the prosecution of such cases. A recent contribution by Tong outlines five characteristics that can be used to classify NAI among dogs: (1) presence of multiple fractures; (2) fractures that occur in more than one region of the body; (3) transverse fractures; (4) fractures that present at a later stage of healing; and (5) multiple fractures at different stages of healing.¹ Due to the involvement of skeletal injuries in establishing the presence of NAI, forensic veterinarians may benefit by consulting with forensic anthropologists familiar with preparing bony specimens for analysis and conducting analysis of skeletal trauma.

In this presentation, the manners in which collaboration between forensic veterinarians and forensic anthropologists can aid investigations of suspected NAI are discussed. A case study is described that resulted in the successful prosecution and conviction of NAI in a domestic dog found near Boston, MA, in 2013. A young dog was found alive on the side of a roadway but euthanized shortly thereafter due to extensive injuries that were documented. During the necropsy, the forensic veterinarian realized that a forensic anthropological consultation would be useful due to the extent of injuries found across the animal's skeleton. During the anthropological examination, multiple healed injuries were described and utilized to conclude that the dog had sustained NAI on multiple occasions. The combination of the veterinary and anthropological data, along with the novel use of DNA technology, resulted in a criminal conviction in 2018. Ultimately, this case study demonstrates that collaboration between forensic veterinarians and forensic anthropologists may be an emerging area of both disciplines.

Reference(s):

¹ Tong L. Fracture Characteristics to Distinguish Between Accidental Injury and Non-Accidental Injury in Dogs. *The Veterinary Journal*. 2014;199(3):392-8.

Veterinary Forensics, Non-Accidental Injury, Animal Abuse