

phenomenon. Several antigens are known for being responsible for anaphylactic reactions and anaphylactoid reactions, of which we can mention the vaccines. In reported case, the cat died after the vaccination procedure, suggesting that it was caused due to malpractice or anaphylaxis. Anaphylaxis affects the lungs causing bronchoconstriction, pulmonary hypertension, and systemic hypotension. As observed in the necroscopic exam, the animal presented malformations that affected the proper functioning of the respiratory system. With only one functional lung, the animal would rapidly initiate a respiratory failure if it suffered bronchoconstriction, and could suddenly die. **Conclusion:** The use of the necropsy technique as a tool to determine a cause of death and a correct interpretation of the findings are important for the elucidation of a case of legal interest.

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## TRAUMATIC EVISCERATION OF A KITTEN STRUCK BY A HIT AND RUN DRIVER: CASE REPORT

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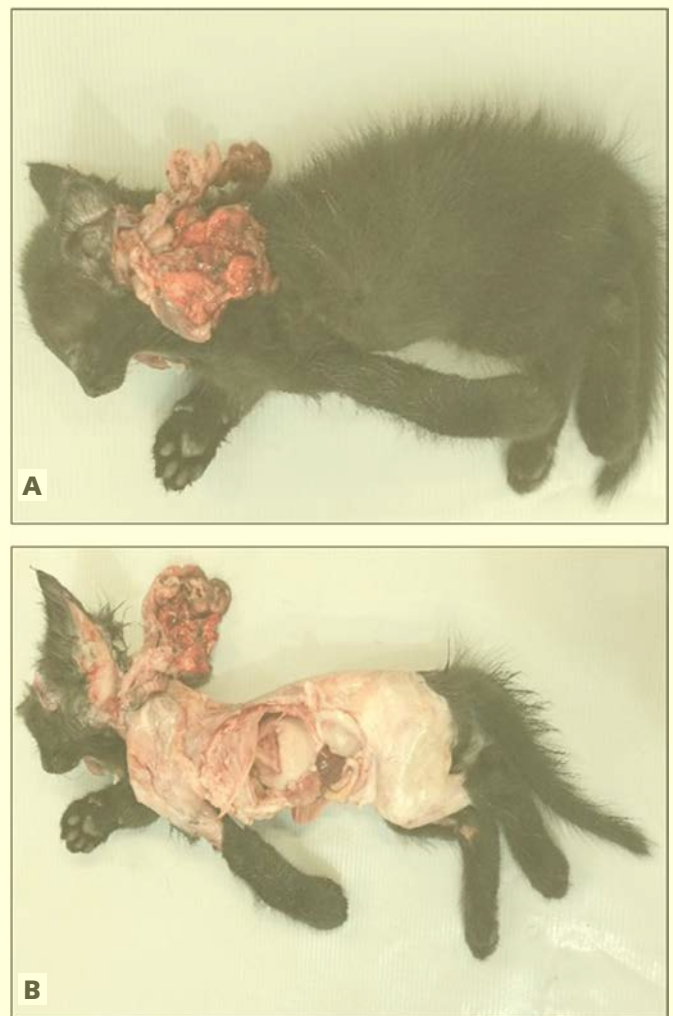
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**Introduction:** In legal medicine, it is a reality to correlate both medical and legal knowledge when in the interest of the Justice. Thus, the necropsy is understood as a technique to perform the practical evaluation of the corpse, being crucial to establish the definitive diagnosis, explain the different processes, and confirm or not the initial suspicions (BROWNLIE, 2016). In human legal medicine, a lot of hit and run cases are the reason for corpse evaluation. The investigation of hit-and-run road accidents is a special challenge to forensic medical examiners requiring a multiskilled approach. In the literature, the principles of evaluation were demonstrated primarily on the basis of hit-and-run fatalities, but they also apply to clinical forensic medicine (DODD, 2000). Major abdominal evisceration injuries, defined as herniation of the contents of the peritoneal cavity through the body wall with exposure of the abdominal viscera, appear to be rare in small animals, with only 12 cases reported over a 10-year period in one large teaching hospital (GOWER, 2009). In this paper, it is described the case of a kitten that was found dead in the parking lot area of the Universidade Estadual do Ceará (Uece), eviscerated, with its visceral organs showing through a traumatic opening on the left side of its neck, demonstrating the severity of the lesions caused by a trauma involving a hit and run driver. The objective of this case report was to show the importance of a well structure necropsy report with background image footage and its role as scientific evidence in animal-related crimes. **Methods:** There was performed a necropsy of the animal right after it was found. All procedures were performed by the service of Veterinary Pathology and Legal Medicine Laboratory in Uece, using a modified technique of a veterinary necropsy

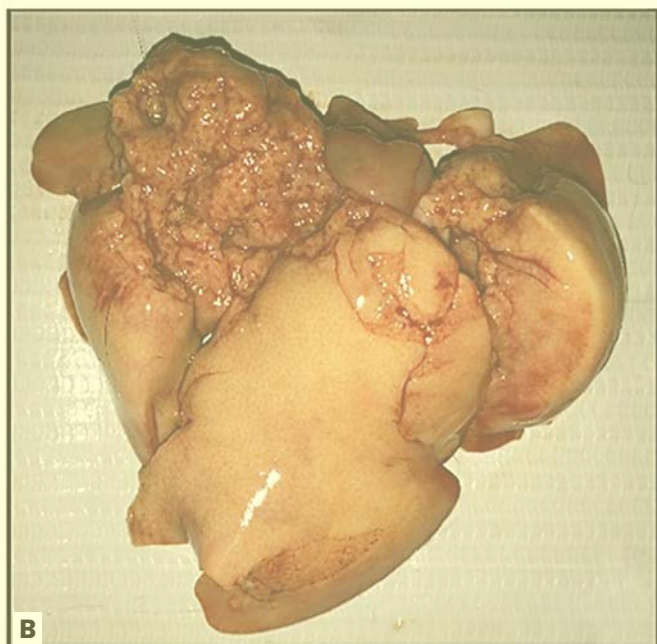
protocol from the Armed Forces Institute of Pathology (AfiP) published in 2001. The skin was pulled off mostly near the evisceration site in order to disclose more details of the main lesions found, a common procedure during necropsy with forensics purposes. All the photograph records were taken there as well. **Results:** On the external examination of the body, on the left side of the neck, it was visualized evisceration with segments of intestines, mesentery, trachea, heart and lungs. The jaw was broken and placed in a straight angle which made it complete open. After the skin removal, a rib fracture on the left side of the thorax and a luxation of the scapula articulation where the organs went through was also evident. On the internal examination, there was multiple traumatic herniation of the diaphragm correspondent with the rib fracture, where might be the path the eviscerated organs used to reach its final location after the impact. The other organs left inside (liver, stomach, intestine segments) also presented topographic location abnormalities. In addition to that, the liver presented a great area of laceration as well, which might be the source of the blood found on the thorax cavity (hemothorax). The final topography of the organs would not allow the animal to breathe properly and the liver laceration caused a great loss of blood that was found on the thorax cavity, enough to cause a vascular collapse in this young animal. The cause of death was attributed to hypovolemic shock and multiple failure of the organs, probably induced by the evisceration trauma and general distress. **Discussion:** In consideration to the pattern of the lesions found on the corpse, the external factor that caused all the injuries in the first place was the impact suffered by a great mass, such as a automobile for example, which was very likely to happen because the animal was seen around the parking lot area, that have a lot of automobile flux (GOWER, 2009). Some witnesses were listened after the necropsy procedure and confirmed they saw earlier that day a minivan pass over the body, confirming the initial hypothesis of a hit and run. The animal was very young, by its features, aged less than two months approximately, with very fragile bones (correspondent to its age) and not very dense musculature, which can explain the facility that the organs were eviscerated in such way when put under a lot of pressure like it was to be under the automobile, especially if it was in movement. The next step of the investigation would be gather enough information about

who could be the responsible for this animal-related crime and in addition to the witness statement and the necropsy report, take it to the authorities so the right measures could be arranged for law enforcement. In a case like this, it is crucial to make a well structured report of the necropsy, with all the necessary image footage that background the scientific hypothesis of a death caused by trauma and also assists society and the authorities to visualize even the traces of cruelty in this animal-related crime, since it was committed against an even more fragile and helpless living creature, a kitten. (LOCKWOOD, 2016).



**Figure 1** - Left side view of the body showing the traumatic evisceration before (A) and after (B) skin removal, showing also topographic abnormalities of its viscera through abdominal opening.

Source: Laboratório de Patologia e Medicina Veterinária Legal da Faculdade de Veterinária da Universidade Estadual do Ceará.



**Figure 2** - (A) Rib fracture and traumatic diaphragm herniation from inside view. (B) Liver traumatic laceration in evidence.

Source: Laboratório de Patologia e Medicina Veterinária Legal da Faculdade de Veterinária da Universidade Estadual do Ceará.

**Conclusion:** The conclusion, was that hit and runs, like in human medicine are common cause of trauma and deaths in veterinary medicine. It is important to identify the lesions and correlate than to the cause of death in order to help gather data about animal abuse. This kind of data is important because it helps to bring attention to this kind of crimes that are increasing and are still underestimated in nowadays society. For this matter, it is important to have

a well prepared team to perform this kind of procedure and help the justice with a fine and well-structured report that can be used later as a court material.

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### **PATHOLOGIC FINDINGS IN 48 DOGS EXPOSED TO NONACCIDENTAL TRAUMA (PHYSICAL ABUSE) IN THE CENTRAL REGION OF RIO GRANDE DO SUL, BRAZIL**

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**Introduction:** Over the last years, the human society has been demonstrating an increasing interest in the prosecution of crimes against animals (LOCKWOOD, 2006). As a consequence of the growing connection and dependence between humans and animals, the laws regarding animal abuse have become more specific and rigid (FARACO, 2008). Based on this fact, the number of studies concerning post mortem