

seen in topography of coxal bone and measured 0.8cm. In the cervical region two puncture-cutting lesions of 0.8cm in diameter were noted, and on the right lateral side there were two parallel perforate-cutting lesions of 0.6 x 0.4 and a subcutaneous hematoma.

In the left lateral cervical region there was a perforate-dilacerating lesion (1.5cm in diameter). And in the topography of the atlanto-occipital joint another lesion that mediates 4.5 X 2.5cm, with exposure of muscular layer. During the opening of the corpses it was noted a hematoma in musculature and in the subcutaneous tissue of the abdominal area and in the adjacent area to the jugular vein, diffuse hemorrhage in submandibular regions, costal gradil and left flank. No similar lesions were seen in internal organs. The necropsy findings suggest that the death was caused by hypovolemic shock (hemorrhage) caused by secondary bleeding to puncture-sharp lesions generated by a piercing-cutting object as described by Del Campo (2009) and Sabes, Girardi and Vasconcelos (2016). In human medicine the medical traumatology studies the injuries produced by violence on the human body. There are numerous determinations and points to be evaluated in cases of a criminal death. Veterinary medicine still lacks further studies and literature concerning cases of animal abuse. The present investigation emphasizes some of these points, such as the need to standardize the language to be used in a medical-veterinary expert report.

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POST-VACCINATION DEATH IN A MALFORMED CAT: CASE REPORT

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Introduction: Diaphragmatic hernia is a condition in which there is displacement of the abdominal viscera into the thoracic cavity. This condition can be acquired or congenital. In most cases, it is a condition acquired through a traumatic process. Congenital diaphragmatic hernia is a malformation whose reason is unknown, and symptoms usually appear before the first year of life and may lead to death, however, some may remain asymptomatic for life. Macroscopically, there is a communication between the thoracic cavity and the abdominal cavity through an opening in the diaphragm. The differentiation between congenital and traumatic diaphragmatic hernia is delicate and not always possible. It is based on anamnesis, in the presence or absence of trauma, in clearly traumatic lesions of the diaphragm, mainly in the coexistence of two or more holes in one of its sides, in the presence or absence of visceral or vascular anomalies, and others. The macroscopic aspect of the orifice and the histological examination of the borders are not very reliable, since in old traumatic hernia there may be no tissue reaction and in congenital hernias, frequent visceral transit, irritating the edges or compressing by strains, can trigger an inflammatory reaction. The differentiation between congenital and traumatic leading to forensic consequences may represent the primary cause of death or be ancillary causes of death. Forensic necropsy is a practice that aims to determine the cause of death of the animal

and is considered a fundamental instrument for the investigation of cases with legal potential. This work aims to report a case, with legal potential, of an animal that died in a vaccination campaign and that after necroscopic examination it was verified the presence of malformations, including congenital diaphragmatic hernia. **Materials and Methods:** On October 02, 2013, a female, undefined female feline aged six to 10 years died at the time of rabies vaccination. This showed nervous behavior and urinated during application. Vaccine validity was within the period of use established by the manufacturer. Vaccine application's route was subcutaneous. On the same day, no other vaccines were applied. The animal had been vaccinated against rabies in November of the previous year. The corpse was referred to the Laboratório de Patologia e Medicina Legal Veterinária da Universidade Estadual do Ceará (LPMLV). A modified technique of a veterinary necropsy protocol from the Armed Forces Institute of Pathology (AfiP) was used (2011) to perform the post-mortem examination and a photographic record of the necropsy findings was performed simultaneously. **Results:** On the external body's examination, it was observed that the animal had adequate body scoring for the species, ocular and oral mucosae normocorated, the latter with clues of chronic periodontitis evidenced by areas of haemorrhage and dental artery with hypodeveloped dentition (upper and lower incisors) (Figure 1-A). The internal examination revealed incomplete development of the diaphragmatic muscle (Figure 1-B) culminating in his discontinuity and consequently forming the diaphragmatic hernia condition. Other important findings included trachea with partial duplication from its proximal third. In the distal portion, each branch only communicated with a single lung (Figure 1-C). The lungs showed marked congestion and multiples hemorrhages foci and was both compressed by abdominal viscera. The left lung was hypoplastic (Figure 1-D). Regarding the abdominal viscera, the spleen was anatomically displaced, located in the thoracic cavity, and had increased length evidenced by the development of nodular hyperplasia. The liver was also anatomically displaced, locating completely to the right of the midline. The organ was intensely congested, with friable consistency and irregular surface. Portions of the intestine were located in the thoracic cavity. There was also a presence of purulent contents inside the uterus, an organ with slightly thickened walls.

The causes mortis was attributed to respiratory insufficiency as a consequence of a probable anaphylaxis aggravated by the presence of congenital diaphragmatic hernia, double trachea and left pulmonary hypoplasia.

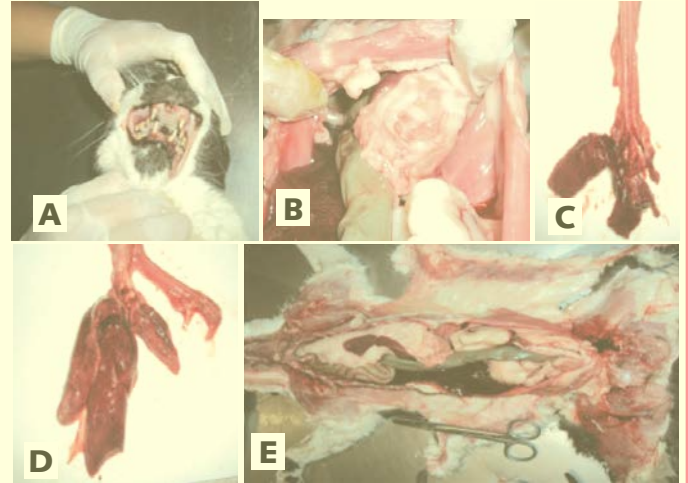


Figure 1 - Necroscopic examination. (A) Undeveloped upper and lower incisors. (B) Incomplete diaphragmatic muscle. (C) Trachea with two branches. (D) Hypoplastic left lung. (E) Abdominal viscera (spleen, omentum, portion of the intestine and liver) entering the thoracic cavity. Source: Laboratório de Patologia e Medicina Veterinária Legal da Faculdade de Veterinária da Universidade Estadual do Ceará (UECE).

Discussion: Congenital diaphragmatic hernia is an uncommon condition in small animals, but it's even more uncommon in adults. The presence of this anomaly allows the passage of abdominal viscera to the thoracic cavity, consequently leading to the compression of thoracic organs. This compression in the lungs is responsible for the development of hypoplasia and pulmonary hypertension. Due to the reduction of the left pulmonary parenchyma (hypoplasia) concomitant with the duplication of trachea (malformation not reported in the literature) of the animal in question, it infers that there was a significant reduction in the rate of hematosis, functionally overloading the right lung. Type I hypersensitivity, known as immediate or anaphylactic hypersensitivity, can be characterized as an acute and severe systemic reaction that affects several organs and systems simultaneously, being caused by the pharmacological activity of mediators released after activation of mast cells and basophils. The intensity of the release of these substances and the individual sensitivity determine the clinical repercussion of the

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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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