

should help clarify medical doubts about the biological process suffered by the animal involved, and link the type of the lesions found to the source of the impact.

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IATROGENIC PNEUMOTHORAX IN DOG AFTER ATTEMPT TO CARDIOPULMONARY RESUSCITATION (CPR)

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Introduction: Pneumothorax is the presence of air in the pleural cavity resulting from a discontinuity of the pleural membrane, which allows air to enter the thoracic environment, turning positive the pressure that was negative (ARRUDA, 2011). This condition can surge by spontaneous, traumatic or iatrogenic way. It can be classified as open or closed pneumothorax. The former is produced by a penetrating trauma generating a communication between the thoracic cavity and outer environment turning possible the progressive air penetration. The latter is caused by a blunt trauma and the air accumulation occurs due to extravasation from the injured lung parenchyma, bronchial tree, trachea or esophagus. The consequence of the intrathoracic positive pressure involves: decreased venous return, decreased cardiac output and progressive respiratory insufficiency, possibly resulting in rapidly patient's death. This paper is a report of an iatrogenic pneumothorax case confirmed by a necropsy exam (ANDRADE FILHO; CAMPOS; HADDAD, 2006). **Methods:** A two years old Labrador dog was taken to emergency veterinary care for abdominal dilation and syncope. As an attempt to keep the patient alive, CPR was performed and during this process the animal died due to cardio-respiratory arrest. The necropsy procedures were performed by the Laboratório de Anatomia Patológica e Patologia Clínica (Pathovet), in Fortaleza, Ceará, using the modified technique of a veterinary necropsy protocol from the Armed Forces Institute of Pathology – Afip (ARMED FORCES INSTITUTE OF PATHOLOGY, 2001). **Results:** During necroscopic examination it was found a caudally dislocated diaphragmatic dome with an insufflating appearance (Figure 1), caused by the CPR procedure, leading to edema, acute pulmonary hemorrhage (Figure 2), pneumothorax and death. Although the cause of death was clear,

other findings contributed to the process since the animal presented intense gastric dilation in consequence of a big amount of food (ration) semi-digested filling completely the organ causing a compression of the liver lobe against the ribs and diaphragm with evident necrosis and hemorrhage (Figure 1), not seen in the diaphragm, which leads to the conclusion that it was a process prior to pneumothorax, but that certainly contributed to the acute respiratory failure responsible for the animal death.

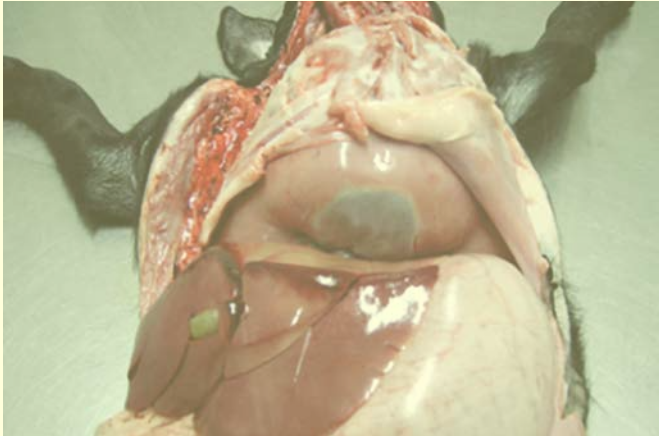


Figure 1 - Abdominal cavity – Caudally dislocated diaphragmatic dome with an insufflating appearance characteristic of pneumothorax, gastric dilation and liver lobe with evident necrosis and hemorrhage.

Source: Laboratório Pathovet.

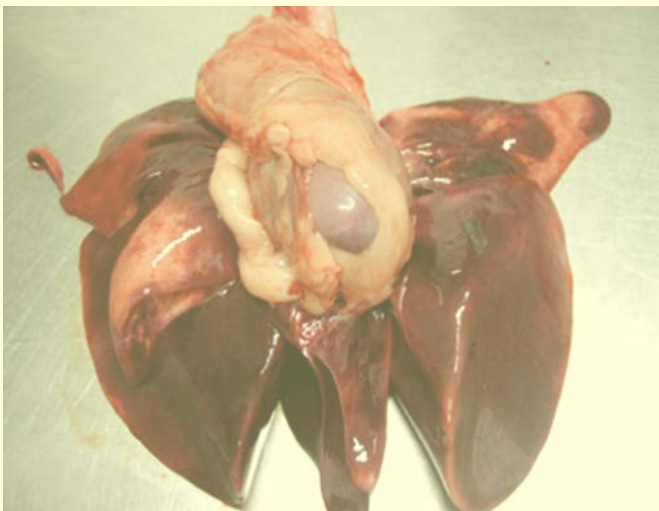


Figure 2 - Lung – Acute hemorrhage.

Source: Laboratório Pathovet.

Discussion: Iatrogenic pneumothorax is due to a diagnostic or therapeutics interventions, the most part invasive ones, from a simple thoracocentesis to trans-thoracic biopsies.

Another cause, but not a common one, is an aggressive CPR procedure, where can occur mainly ribs fractures and injuries of lung parenchyma (VASCONCELLOS, 2009). Air presence in the thoracic cavity, if not treated or in accentuated amount, can cause the patients death, as it was found in this case. **Conclusion:** Iatrogenic pneumothorax can be involved in cases where the veterinarian is an working expert. The determination of the death's cause is very important and the necropsy is a strong tool in forensic veterinary that make possible the description of how and why the animal died, as in the present case, where it was demonstrated an iatrogenic pneumothorax.

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OCULAR TRAUMA LEADING TO CARDIAC ARREST IN A SHIH TZU DOG

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Introduction: Veterinary, legal medicine is a branch of veterinary science responsible for elucidating questions