

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.

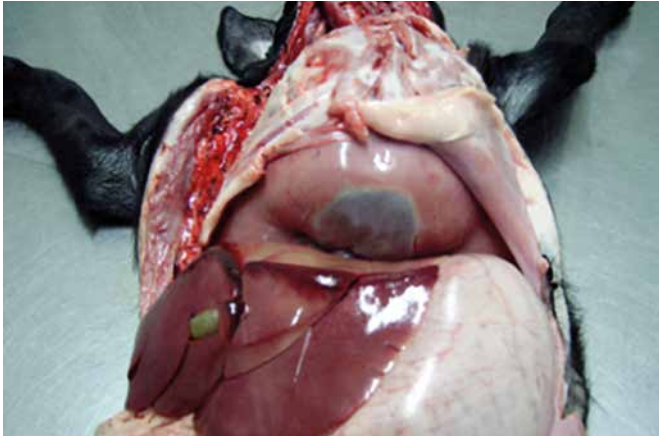


Figure 1 - Abdominal cavity – Caudally dislocated diaphragmatic dome with an insufflating appearance characteristic of pneumothorax, gastric dilation and liver lobe with evident necrosis and hemorrhage.

Source: Laboratório Pathovet.

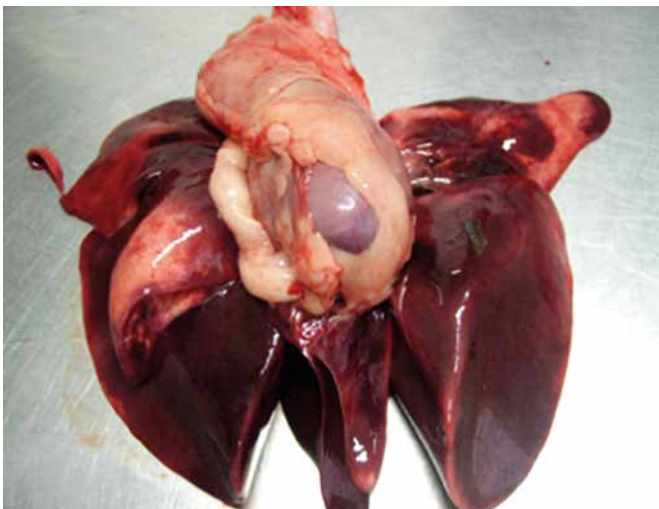


Figure 2 - Lung – Acute hemorrhage.

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.

References

- ANDRADE FILHO, L. O.; CAMPOS, J. R. M.; HADDAD, R. Pneumotórax. *Jornal Brasileiro de Pneumologia*, Brasília, v. 32, p. S212-216, 2006. Suplemento 4.
- ARMED FORCES INSTITUTE OF PATHOLOGY. **Technical Bulletin Med. nº 283:** veterinary necropsy protocol for military working dogs and pathology specimen submission guidelines. Washington, D.C.: Department of the Army, 2001.
- ARRUDA, I. V. **Pneumotórax:** revisão literatura. 2011. 32 f. Trabalho de Conclusão de Curso (Especialização em Medicina Veterinária Intensiva de Pequenos Animais) – Universidade Federal Rural do Semi Árido, Mossoró, 2011.
- VASCONCELLOS, R. R. **Pneumotórax traumático em cães.** 2009. 28 f. Trabalho de Conclusão de Curso (Bacharelado em Medicina Veterinária) – Faculdade de Veterinária, Universidade Federal do Rio Grande do Sul, Porto Alegre, 2009.

OCULAR TRAUMA LEADING TO CARDIAC ARREST IN A SHIH TZU DOG

PIMENTEL, S. P.¹; VIANA, D. A.²; MATOS, M. G.¹; LOPES, C. E. B.¹; RODRIGUES, F. R. N.¹

¹ Undergraduate student of Veterinary Medicine, Universidade Estadual do Ceará (Uece). E-mail: samthvet@hotmail.com.

² Professor of Animal Pathology, MSc, DSc (Uece) and Technical Scientific Director of Laboratório de Anatomia Patológica e Patologia Clínica S/S LTDA (Pathovet) (<http://www.pathovet.com.br>) – Fortaleza.

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

applied to the law field. Forensic traumatology is a segment that studies the effects of an external energy released on the victim body, translating injuries and immediate or delayed pathological states produced in the body, in order to elucidate the dynamics of the facts (EÇA, 2003). For procedures that have availability properly fresh corpses, or even preserved carcasses by cooling or freezing processes, it is necessary the use of necropsy techniques to establish the *causa mortis*. The aim of the study was to report a case of an acute ocular trauma in a Shih Tzu dog that triggered the early animal's death. **Methods:** A four years-old Shih Tzu male dog was forwarded to Pathovet® Laboratory in Fortaleza for necroscopic examination after a sudden mysterious death. According to the case history, on November 23rd, 2012, the owner took the animal to take a bath and to shear. The animal was healthy, had no lesions before his visit to the pet shop. The procedure started at midday, but during the drying process, the animal presented spasms and involuntary contractions, being then sent to another room to be assisted, but died just after. All necropsy procedures were performed by the Pathovet® Laboratory on November 24, 2012, using a modified technique of a veterinary necropsy protocol from the Armed Forces Institute of Pathology – Afip (ARMED FORCES INSTITUTE OF PATHOLOGY, 2001). **Results:** In the *post mortem* examination, the main findings included severe left unilateral hyphema, intense hemorrhage of the eyeball and surrounding tissues, marked edema and involvement of the optic nerve segment, showing a traumatic process, together with moderate congestion and brain edema (Figure 1). The analysis of the thoracic cavity revealed moderate congestion and pulmonary edema extending to the upper respiratory airways (acute process), bleeding foci, atelectasis and emphysema, as well as moderate right atrioventricular dilatation, small hemorrhage foci in the epicardium and endocardium.

Discussion: Brachycephalic dogs are susceptible to proptosis of the eyeball, since they have a shallow orbit. Eyeball proptosis occurs by a contusion, an injury resulting from contact with an object directly with the eye globe, or by a concussion (STERTZ, 2014). According to internal medicine literature, blunt or sharp trauma in the eye globe is the most frequent cause of hyphema in small animals (MARTINS, 2015). In consideration to the pattern of the lesions found on the corpse, the external factor that caused all the injuries was a damage

resulting from the contact of a blunt object directly on the eyeball. The energy transmission could have crushed the tissues and ruptured the blood and lymphatic vessels. Neurogenic pulmonary edema is a sudden-onset respiratory disorder characterized by accumulation of fluid in the parenchyma and pulmonary alveoli. It is associated with situations of severe brain damage, such as brain trauma and seizures (RIDENTI, 2012). This condition can suddenly lead to the patient's death. Brain lesions could have been the explanation to the visualized clinical signs, and consequently the cause of a cardiorespiratory arrest. **Conclusion:** In conclusion, it is noteworthy to consider the importance of a meticulous eyes examinations during necropsy, considering that ocular traumas constitute a true and unfortunate reality in small animals, thus showing its importance not be neglected by the veterinarian, because of its possible (systemic) consequences in serious traumas, as the present case. Moreover, the use of the necropsy technique as an auxiliary tool was fundamental for the elucidation of the *causa mortis*, together with providing information about the possible evolution of the unfavorable processes, being even considered a formal report useful and, most of the times, necessary for judicial processes.

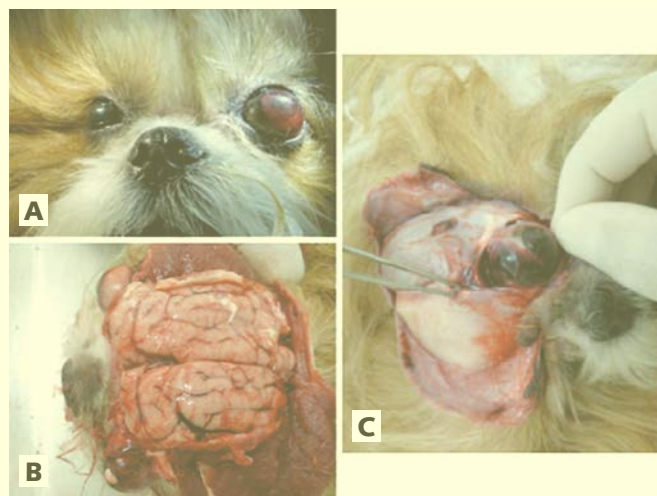


Figure 1 - (A) Unilateral proptosis and hyphema; (B) Hemorrhage of the left eyeball; (C) Congestion and moderate cerebral edema.

Source: Laboratório Pathovet.

References

ARMED FORCES INSTITUTE OF PATHOLOGY. **Technical Bulletin Med. n° 283**: veterinary necropsy

protocol for military working dogs and pathology specimen submission guidelines. Washington, D.C.: Department of the Army, 2001.

EÇA, A. J. Tanatologia e traumatologia. In:_____. **Roteiro de medicina legal**. Forense. Rio de Janeiro: Forense, 2003.

MARTINS, T. B.; BARROS, C. S. L. Red eyes in the necropsy floor: twenty cases of hyphema in dogs and cats. **Pesquisa Veterinária Brasileira**, Rio de Janeiro, v. 35, n. 1, p. 55-61, 2015.

RIDENTI, F. A. S. Edema pulmonar neurogênico: uma revisão atualizada da literatura. **Revista Brasileira de Terapia Intensiva**, São Paulo, v. 24, n. 1, p. 91-96, 2012.

STERTZ, F. H. *et al.* A. Proptose de globo ocular em canino. In: CONGRESSO REGIONAL DE MEDICINA VETERINÁRIA, 2, 2014, Joaçaba. **Anais...** Joaçaba: Universidade do Oeste de Santa Catarina, 2014.

COMMENTS ON THE AMATEUR CREATION OF PASSERIFORMES AND ITS CONTROL SYSTEM: SISPASS

LORIERI, V. C.¹; ROBIS, F. N. M.²

¹ Departamento de Fauna do Estado de São Paulo. E-mail: carolinal@sp.gov.br.

² Polícia Militar do Estado de São Paulo.

Introduction: Since the 1960s, to keep wild animals at home, as a pet, it must be of legal origin (VILLE, 2012). The control method of wild animals origin is based on marking devices, which must be linked to the original document, usually represented by purchase bills. However, there is an activity in Brazil that doesn't comply the general rule. It is the amateur creation of wild passerine birds, stated in 1967's Federal Law nº 5.197 (BRASIL, 1967), and currently regulated by the 2010's Ibama Normative Instruction nº 10 (INSTITUTO BRASILEIRO DO MEIO AMBIENTE E DOS RECURSOS NATURAIS RENOVÁVEIS, 2011). For managing this activity, a computerized system had to be created, named the Passeriform Registration System (Sispass). This system consists of a database, created in 2003, which includes all the information from Brazilian amateur breeders (ROSA *et al.*, 2003), who must keep their records up to date,

routinely stating the situation of their respective breed. This system operates on-line and was created to manage and supervise passerine breeders. These peculiarities wouldn't be justified by the established general rules for the maintenance of wild animals in captivity; however, it is observed that the purpose of this activity, called an amateur creation of passerines, isn't merely keeping the animals in captivity. It aims to maintain a culture of passerine breeding, making it a legal activity (ROSA *et al.*, 2003). **Materials and Methods:** This article aims to relate the main national norms that give legal support to the amateur creation of passerines, data on the impact on wildlife preservation, especially in the State of São Paulo, comparing data on the trafficking of wild animals at national and regional levels, mainly of those that affect the Passeriform System (Sispass). **Results:** The *ex situ* creation of native birds is the only category of fauna breeding that has a consolidated amateur category, where the citizen can breed a male and a female of passeriform and to tag their offspring. It is estimated that there are approximately 340 thousand registered breeders in Sispass, with a population of more than three million of wild animals. Breeders needn't be technicians or have training in biology, zootechnics or veterinary medicine to maintain the breed's sanity and integrity, as other categories of *ex situ* fauna require. Data compiled by Rede Nacional de Combate ao Tráfico de Animais Silvestres (Renctas) and show the species involved in the wild animals traffic, with information provided by Ibama, between 1999 and 2000 on most trafficked classes of animals, 82% of which are represented by birds with passeriforms as the bird order most illegally marketed in Brazil (Graph 1). Analyzing data provided by the Environmental Military Police of the State of São Paulo, which contains all the seizures of native wild animals carried out in police operations, from 2006 to 2011, it can be said that the illegal bird trade reached alarming numbers. Approximately 33,000 animals were seized just in 2008, and 27,000 of them were native birds. When analyzing the data of apprehensions of passeriforms (Graph 2) in the same year, it is concluded that 27,000 birds were seized, 20,000 were passeriform birds, representing 74% of all birds trafficked in the state of São Paulo. In 2011, despite the absence of arrest data for the full year, there was an accounted data of 80% of all seized animals.