

CHRONIC TRAUMATIC DIAPHRAGMATIC HERNIORRHAPHY IN A 7-MONTH-OLD FELINE – CASE REPORT

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Abstract: Diaphragmatic hernias in small animals require trauma with great impact to occur and are mostly due to car accidents. They are considered emergencies because they present an inherent risk of death due to the inability to expand the lung. The present work aims to report the case of a feline patient, 7 months old, who suffered trauma due to being run over and who, after about 3 months, began to present severe dyspnea and was referred to the Veterinary Hospital of Ulbra under suspicion of diaphragmatic hernia. The suspicion was confirmed through a simple abdominal and thoracic radiographic examination, which showed the absence of most organs in the abdominal cavity and their presence in the thoracic cavity. Due to the absence of clinical improvement with attempts at stabilization and oxygen therapy, the patient was referred for emergency surgical treatment using the diaphragmatic herniorrhaphy technique. For treatment, a median ventral celiotomy was performed with repositioning of the viscera in the abdominal cavity and closure of the thoracic cavity by correcting the defect in the diaphragm muscle. After the procedure, the patient presented a gradual improvement in the dyspnea condition, being discharged on the third day of postoperative hospitalization. Despite the unfavorable prognosis due to the history of acute chronic diaphragmatic hernia, the chosen surgical technique, as well as the postoperative treatment, were effective and enabled the patient's clinical improvement.

Keywords: diaphragmatic hernia; dyspnoea; trauma; cats; chronic.

INTRODUCTION

Diaphragmatic hernia occurs when the continuity of the diaphragm is broken, so that organs from the abdominal cavity can migrate into the thoracic cavity (JOHNSON, 2014). They require a trauma with great impact to occur (JOHNSON, 2014; RADLINSKY, 2016) and in small animals, most of them result from car accidents (RADLINSKY, 2016). They are considered emergencies because they present an inherent risk of death due to the inability to expand the lung. Therefore, as cited by Dias (2021), a traumatic diaphragmatic hernia is a condition considered critical, which requires rapid intervention, however, patient stabilization is an essential factor for success.

GOALS

The present work aims to report the case of a feline patient, 7 months old, attended at the Veterinary Hospital of ULBRA (HV-ULBRA) who suffered a trauma due to being run over and who, after about 3 months, started to present severe dyspnea.

METHODOLOGY

The clinical suspicion was confirmed through a simple abdominal and thoracic radiographic examination, which showed the absence of most organs in the abdominal cavity and their presence in the thoracic cavity (Figure 1).

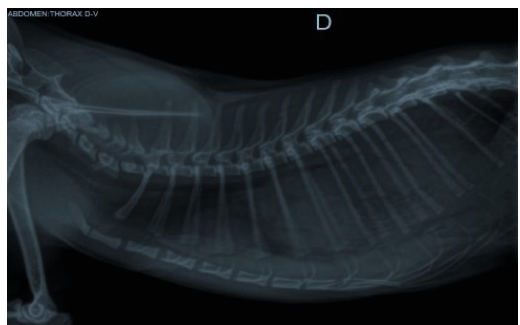


Figure 1: Preoperative X-ray showing the presence of a spleen and intestinal loops in the thoracic cavity.

Due to the absence of clinical improvement with the attempts at stabilization and oxygen therapy, the patient was referred for emergency surgical treatment using the diaphragmatic herniorrhaphy technique, as occurred in the case reported by Michaelsen et al. (2013). For the treatment, a median ventral celiotomy was performed with repositioning of the viscera in the abdominal cavity through light and delicate traction. The adhesions of the hepatic lobes to the diaphragm were undone through the application of double ligatures followed by a section between them. After repositioning the viscera and verifying the absence of bleeding, the thoracic cavity was closed by correcting the defect in the diaphragm muscle, which was performed with a scalloped suture and non-absorbable synthetic monofilament thread. At the end of the suture, thoracentesis was performed to drain the residual pneumothorax and celiorrhaphy was performed. At the end of the procedure, the patient was transferred to the intensive care unit (ICU) sector, where she was kept on assisted ventilation until she fully recovered her lung expansion capacity. A radiograph taken after the surgical procedure showed a well-defined diaphragmatic dome, with adequate separation between the thoracic and abdominal cavities (Figure 2).

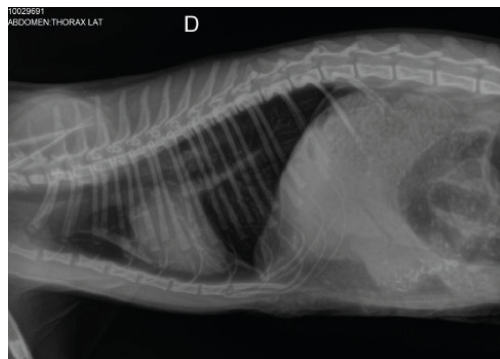


Figure 2: Postoperative X-ray showing well-defined diaphragmatic dome.

RESULTS

After the procedure, the patient presented a gradual improvement in the dyspnea condition, being discharged on the third day of postoperative hospitalization. The stitches were removed 10 days after the surgical procedure and the surgical wound was completely healed, the patient had already gained weight and the owner reported that there was a change in the animal's behavior, which was now active and playing.

CONCLUSION

Despite the unfavorable prognosis due to the history of acute chronic diaphragmatic hernia, the chosen surgical technique, as well as the postoperative treatment, were effective and enabled the patient's clinical improvement.

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