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Surgical management of ventral hernia in a Labrador pup

J Dash, SS Behera, SS Patange, SR Mishra and M Behera

Abstract
A 5 month old intact male Labrador pup was presented with a history of swelling in the lateral portion of abdomen since last 15 days without any pain or discomfort. History, physical examination, lateral radiograph and ultrasonograph of the supposed mass confirmed it as a case of ventral hernia with loops of intestine as content. Under general anaesthesia the hernia was repaired. Post-operatively antibiotics, analgesics and feeding habits were advised. On 15th day skin sutures were removed and the dog recovered well.

Keywords: Hernia, dog, trauma

Introduction
Abdominal hernia is any full thickness defect in the external wall of the abdomen that may allow protrusion of abdominal contents. Herniation of the abdominal contents through abdominal wall other than a natural orifice is termed as ventral or lateral abdominal hernia (Das *et al*., 2017) [1]. Hernias may be congenital or acquired in dogs (Bharathidasan *et al.*, 2018) [2]. Different types of blunt trauma such as automobile accidents, kicks or fall are responsible for development abdominal hernias. The location of the hernias depends on various factors such as the direction of the traumatic force and intra-abdominal pressure changes (Slatter, 2003) [3]. The most common areas of herniation due to blunt trauma are the ventro lateral caudal abdominal and paracostal regions. Peritoneal sac and the hernia contents are absent in traumatic hernias as the contents are displayed directly through a tear in the abdominal wall (Pavletic *et al.*, 2005) [4]. Generally lateral abdominal hernia content is gastrointestinal part of abdomen but involvement of spleen and stomach together is rare in occurrence.

Case history and diagnosis
A 5 month old intact male Labrador pup was presented at Teaching Veterinary Clinical Complex, C.V.Sc & A.H., O.U.A.T with a history of swelling in the lateral portion of ventral midline of abdomen since last 15 days without any pain or discomfort (Fig.1). Clinical examination revealed normal physiological parameters with normal TLC, DLC and Hb values. History revealed a traumatic event with the patient since the protrusion has occurred. Physical examination of the mass revealed a non-inflammatory, reducible, non-painful, soft and fluctuating mass. Lateral radiograph and ultrasonograph of the supposed mass revealed loops of intestine and gas pockets without adhesion or strangulations. Based on the above findings, it was diagnosed as a case of ventral hernia and surgical repair of the hernia was planned.

Surgical treatment
The animal was anaesthetised using a cocktail mixture of Inj. Atropine sulphate at 0.04 mg/kg bwt, Inj. Xylazine hydrochloride at 1 mg/kg IM and Inj. Ketamine hydrochloride at 5 mg/kg IM. The animal was laid in right lateral recumbency. The surgical site was prepared aseptically and incision was made over the swelling by making a skin tent carefully in order to prevent incising the hernia contents. The underlying soft tissues were separated carefully to expose the hernia contents. It was revealed that parts of small intestine along with mesentery were the major hernia contents. The parts of herniated small intestine were not strangulated and there was no adhesion or incarceration. The hernia ring was carefully exposed and reposition of the small intestinal loops and omentum was done to their normal anatomical positions (Fig.2 & 3).

The hernia ring was freshened and the ring was closed with Vicryl 1-0 in a simple continuous suture pattern. The subcutaneous tissue was sutured with vicryl 1-0 in a simple continuous suture pattern with elimination of dead space. The skin incision was sutured with non-absorbable polyamide No 0 in a horizontal mattress suture pattern. Post-operatively the dog was given broad spectrum antibiotics Ceftriaxone @10mg/kbwt for 5 days and meloxicam @ 0.2 mg/kbwt for 3 days. The owner was advised to restrict movement of animal, feed semi-solid food for a week and keep the site of surgery clean. The sutures were removed on 15th day of post-surgery. The dog made an uneventful recovery.

Discussion

Genetic and traumatic factors, surgical intervention, and certain drugs and chemicals may be involved in some hernia. Most hernias involve the protrusion of abdominal contents through parts of the abdominal wall, diaphragm or perineum (Slatter, 2003, Fossum, 2013) [3, 5]. The present case was also the result of a blunt trauma to the abdominal region. In dogs commonly herniations of omentum and small intestine have been reported. Treatment of traumatic hernias encompasses standard wound care principles (Swaim, 1980, Das *et al.*, 2015) [6, 7]. The amount of contamination, the extent of tissue trauma, defect, loss of wall tissue and duration of hernia have an important role on developing stress to animals and during planning herniorrhaphy (Slatter, 2003, Sahu *et al.*, 2019; Satapathy *et al.*, 2022) [3, 8, 9]. Blunt abdominal trauma generally does not result in large areas of loss and hernias are successfully closed by apposing the hernia rings (Waldron *et al.*, 1986) [10]. For successful herniorrhaphy, suture placement is more important than choice of suture type or pattern. In the present case, there was absence of incarceration and intestinal perforation. Hence no post-operative complication was observed.

Fig 1: Swelling in the lateral region of abdomen

Fig 2: Showing hernia ring and content (intestinal loops)

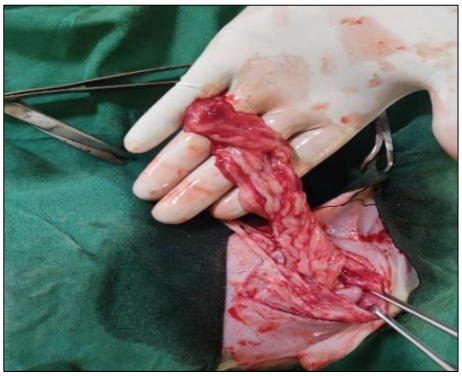

Fig 3: Showing hernia content (omentum)

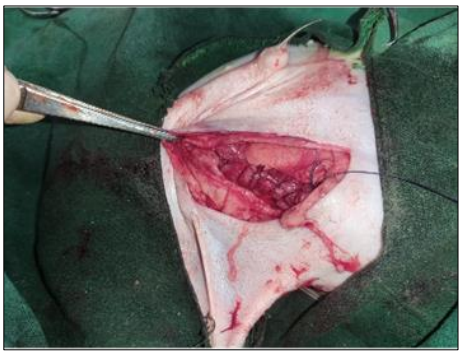

Fig 4: Repair of the hernia ring

References

1. Das J, Kar SN, Das BC. Ventral hernia and its management in a pup. Indian J Canine Pract. 2017;9(2):157-159.
2. Bharathidasan M, Vishnugurubaran D, Dharmaceelan S. Congenital lateral hernia in a Chippiparai puppy. Indian Vet J. 2018;95(05):67-69.
3. Slatter DH. Text book of small animal surgery. Elsevier Health sciences, 3rd Edn; c2003. p. 444-449.
4. Pavletic MM. Abdominal wall hernias: standards of care. Emergency Critical Care Medic. 2005;7(3):1-5.
5. Fossum TW. Umbilical and abdominal hernia. In: Small Animal Surgery. (3rd Edn.). Mosby, Elsevier, St. Louis Missouri, Philadelphia, U.S.A; c2013. p. 36.
6. Swaim SF. Surgery of Traumatised skin: Management & Reconstruction in Dog & Cat. WB Saunders, Philadelphia; c1980. p. 119.
7. Das J, Nath I, Routray P, Das RK, Behera SS. Cell-based therapy and rehabilitation with prosthetic limbs in a dog. Turkish Journal of Veterinary & Animal Sciences. 2015;39(1):115-9.
8. Sahu S, Mishra SR, Behera SS, Mishra C, Mohapatra S, Dalai N, *et al*. Impact of heat challenge on expression dynamics of HSP90 in cardiac cells of goat. Biological Rhythm Research; c2019. p. 1-7. https://doi.org/10.1080/09291016.2019.1672018.
9. Satapathy PP, Mishra SR, Patnaik S, Behera SS, Mishra C, Kundu AK. Transcription pattern of key molecular chaperones in heat shocked caprine cardiac fibroblasts. Animal Biotechnology; c2022. p. 1-8. https://doi.org/10.1080/10495398.2022.2043886.
10. Waldron DR. Abdominal hernias in dogs and cats: A review of 24 cases. J Am Animal Hosp. Assoc. 1986;22:817.