

INTESTINAL EVISCERATION DUE TO HORN GORE INJURY IN A DOE AND ITS SUCCESSFUL SURGICAL MANAGEMENT

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Abstract: A nondescript doe aged around four years was presented with the complaint of protrusion of intestines from right lateral abdomen resulted after horn gore injury since four hours. The area around the injury was debrided and protruded intestines were flushed properly with normal saline. After stabilizing the animal, intestines were pushed in to the abdominal cavity and abdominal wound was closed in routine manner. The doe had an uneventful recovery.

Keywords: Horn gore injury, evisceration, doe.

Introduction

Protrusion of abdominal viscera through a defect created by congenital anomaly or trauma or wound dehiscence or penetrating foreign bodies has been commonly noticed in domestic animals. In India, horn gore injuries are more commonly seen in rural areas. The horn gore injuries caused by horns of bulls, cows or buffaloes are of various shapes, sizes and directions and are goring in nature and violent (Rau, 1992). The horns of bull are long, curved directed towards with smooth tapering ends that produces lacerations and can also penetrate the body cavities. Goring is taken when the bull horn penetrates deeply in the muscles as well as body cavities. The wounds produced due to bull horn impact vary from contusion, laceration and penetrating wound involving internal organs to fractures and these injuries occur more commonly on the abdomen and perineum (Shekon, 1983). The present case discusses successful surgical management of traumatic evisceration of intestines due to horn gore injury in a doe.

History and Diagnosis

A nondescript doe aged around four years was presented with the complaint of horn gore injury. Thorough clinical examination revealed protrusion of intestinal loops filled with gas

which was visible outside the body cavity (Fig.1). The wound was appeared to be fresh but seems to be contaminated. The heart rate, respiration rate and rectal temperature were within normal physiological limits. Immediate stabilization and surgical intervention were carried out.

Treatment and Discussion

The animal was stabilized by using Ringer lactate @ 15ml/kg body weight and then animal was restrained on left lateral recumbency by keeping the affected portion on upper aspect. The exposed viscera were covered with sterile gauze to reduce contamination, tissue damage and the skin surrounding the eviscerated mass was prepared aseptically. The area around the injury was cleaned and protruded intestines were flushed properly with normal saline. The abdominal wound was extended to explore the eviscerated intestines and examined thoroughly for viability, contamination and then intestines were pushed in to the abdominal cavity. The peritoneum was closed using PGA No. 1 in simple continuous pattern and the abdominal muscles were opposed using PGA No. 2 in overlapping pattern. The skin was closed using Nylon in cross mattress pattern (Fig. 2). This suture pattern minimized suture line tension. Postoperative fluid therapy (Ringer lactate and 5% DNS) intravenously for three days, 1.0 gm of ceftriaxone intramuscularly for six days and meloxicam intramuscularly @ 0.5mg/kg body weight for three days were administered. Skin sutures were removed on 12th post surgical day. Postoperatively, the animal recovered uneventfully.

Abdominal trauma is an injury to the abdominal wall. It may be blunt or penetrating and may involve damage to the abdominal organs which results in evisceration of abdominal contents. Evisceration is a life-threatening and emergency condition in humans and animals because self-mutilation and entangling with a sharp object leads to shock from fluid and blood loss, Smeak³. Prognosis of evisceration depends on severity of trauma, location, organ exposed, bleeding, contamination, stabilization, strangulation, administration of antibiotics and early surgical intervention and postoperative care. Early stabilization and surgical intervention can increase the survivability of the animals with less or no post-operative morbidity (Simmon et al., 2011). In abdomen, the horn first tears the subcutaneous tissues and later muscles and further if the violence is more, the peritoneum is punctured. These injuries can be in the form of perforations of abdominal wall, and internally hemorrhages and perforations involving mesentery and bowel (Dogan et al., 2008). The decision of closing the abdominal wall and superficial tissue depends on the amount and location of tissue damage and wound contamination (Simmon et al., 2011). Primary repair should be appropriate for those animals

with acute evisceration with little tissue damage or contamination. Animal with minimal intraperitoneal but significant superficial tissue damage or contamination should have routine abdominal wall closure. Present case was fresh with minimal tissue damage and contamination, so routine abdominal wall closure was carried out after reposition of abdominal viscera. Similar technique was also described by Singh, 2009.

Conclusion

Intestinal evisceration due to horn gore injury was treated successfully in a doe. Prompt surgical intervention is the only treatment of choice for corrections of these defects to prolong the life of the patient. Delayed response and ineffective treatment may lead to serious complications which may ultimately lead to the death of the animal

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References

- [1] Rau, J.B.V. (1992). Bull gore injuries in rural areas. *Indian Journal Surgery*, 44:664-671.
- [2] Shekon, H.S., Khatri, H.L. and Grewal, S.S. (1983). Bull horn injury. *Indian Journal Surgery*, 45: 486-88.
- [3] Simon, M.S., William, B.J. and Kumar, R.S. (2011). Traumatic Evisceration of Abomasum and its Surgical Management in a Cow. *Intas Polivet*, 12(I): 42-43.
- [4] Singh, S.V., Singh, J.P., Singh, K.P., Singh, B. and Singh, H.N. (2009). Intestinal evisceration through persistent umbilical opening in a calf. *Intas Polivet*, 10: 220.
- [5] Smeak, D.D. (1990). Hernia. In: *Current Techniques in Small Animal Surgery*, Bojrab, M. J., 4th ed, William and Wilkins, p 551.



Fig.1: Loops of intestine protruded from horn gore injury



Fig. 2: Operative site after reduction of protruded intestine