VENTRAL HERNIA AND ITS MANAGEMENT IN A PUP

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A 2 months old non-descriptive pup met with an automobile accident and suffered with ventral hernia. Under injectable routine general anaesthesia using atropine, xylazine and ketamine herniorrhaphy was performed, using chromic catgut no 1. The operative site was bandaged with one cloth strap along with administration of antibiotics and preemptive analgesics. The pup recovered well after 15 days and return to normal life.

Key words: Abdominal hernia, Herniorrhaphy, Pup.

Ventral or lateral abdominal hernia is a term used to describe herniation of contents through any part of the abdominal wall other than a natural orifice. If the hernia is ventral to stifle skin fold, it is termed as ventral hernia and the rest at the flank region are known as lateral abdominal hernia (Singhal et al., 2012). The ventral abdominal hernias are commonly seen in new born calves (Jawre et al., 2009) but abdominal hernias are not so common in canines. Abdominal hernias generally occur secondary to trauma, mostly automobile accidents or bite wounds; however occasionally also occur as congenital defect. Bite wounds were the most common cause of traumatic body wall hernia (TBWH) accounting for 54% of canine and 40% of feline hernias (Shaw et al., 2003). When associated with blunt trauma, hernia arises as a result of rupture of the wall from within and caused by an increase in intra-abdominal pressure while the abdominal muscles are contracted (Fossum, 2013). The hernial ring is very prominent and contents of these hernias are usually omentum or parts of gastrointestinal tract i.e. intestine etc. (Gupta M., 2012). The present case report discusses on a ventral hernia in a 2 months old female pup caused due to automobile accident and its successful surgical management.

Case history and Observations

A 2 months old non-descriptive female pup weighing 2.8 kg body weight was presented to the department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry, Bhubaneswar with a complaint of lameness, anorexia, dullness, hanging of a large mass at the ventral abdomen with a history of accident occurred 10 days back. The clinical parameters were found within normal physiological range. Radiological examination of left hind limb did not revealed any orthopaedic condition. Shrunken eyes with congested conjunctival mucous membrane and tenting of skin was suggesting of significant dehydration. Physical examination revealed soft feeling of the contents on palpation in the sac and a clear ring.

Surgical Treatment

Antibiotics like injection ceftriaxone sodium 125 mg I/M and meloxicam @ 0.2 mg/Kg b.wt., I/M as preemptive analgesia were injected. The pup was premedicated with atropine sulphate @ 0.04 mg/kg b.wt., I/M followed by xylazine hydrochloride @ 0.6 mg/Kg b.wt., I/M. General anaesthesia was induced by injecting ketamine hydrochloride @4 mg/kg b.wt., I/V. Ringers lactate and DNS were administered during intra-operative period and general anaesthesia was maintained with ketamine hydrochloride through fluid line intravenously.

The surgical site was prepared as per routine. A 2 inch long linear incision was made over the swollen mass and after separating the fascia the contents like intestines along with the omentum and urinary bladder were found (Fig.1). The contents were pushed inside from hernial ring of approx 1.5 inch diameter (Fig.2) and slowly. After complete reduction of the
hernial contents, the margin of the ring was freshened and herniorrhaphy was performed using chromic catgut no.1 in continuous lock stitch fashion (Fig.3). The abdominal muscles were closed by chromic catgut no.1 and the skin closure with interrupted sutures using nylon. The operated site was painted with povidone iodine solution. Post operatively antibiotic ceftriaxone @10 mg/kg b.wt., I/M for 5 consecutive days and meloxicam @ 0.2 mg/ kg.wt., I/M for 3 days were administered. Routine dressing with povidone iodine and mupirocin ointment along with application of one strap of cloth over the abdomen in order to reduce abdominal pressure on surgical site is advised with restricted movement till healing. On 10th postoperative day the skin sutures were removed.

Results and Discussion
Since the contents were intestines, omentum and urinary bladder and these remained extra-abdominally, hence washing with NSS was done as also reported by Gupta. M (2012) and squeezed out to remove gases developed inside the intestine. The hernial ring was freshened in order to have proper closure and healing as also mentioned by Sutradhar et al., (2009). Since the case was a pup and the hernial ring size was 1.5 inches diameter, so selecting the suture material chromic catgut no.1 (Ethicon) was sufficient in the present case. In this case the pup was with normal health condition and one cloth strap was covered over the operative site which prevented stress on the operative site, which helped in early healing without any complications. The pup recovered well and regained its normal appetite, defecation and life.

References