SURGICAL MANAGEMENT OF INTESTINAL NON HODGKIN’S LYMPHOMA IN A DOG – A CASE REPORT

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Small bowel lymphoma refers to a non-Hodgkin lymphoma that develops in the lymph tissue found in the small bowel. When small bowel lymphoma metastasizes, it often spreads to the mesenteric lymph nodes before extending to other organs in the body. Canine malignant lymphoma is one of the most common tumors and there are 2 anatomic forms of this disease that predominate in dogs: multicentric and alimentary. According to the reports, intestinal tumors are less than 10% in dogs of which lymphoma has been estimated at 29%, adenocarcinoma at 17%, leiomyosarcoma at 23% and small intestinal tumors over 1% (Moore and Vernau, 2000). Canine primary gastrointestinal lymphoma typically does not affect the superficial lymph nodes or the spleen, unlike the multicentric form in which these organs are almost always involved. The majority of canine gastrointestinal lymphomas appear to be primary, with most cases being reported in the small intestine and less case have been reported in the stomach; only a few cases have been in the colon (Coyle and Steinberg, 2004). Female Dogs aged over 10 years are more susceptible. Intestinal neoplasm shows similar symptom as of enteritis or obstruction which makes early diagnosis a difficult task. Present case reports surgical management of intestinal non hodgkins lymphoma in a two year old golden retriever dog.

Case History and Observations

A two year old Female Golden Retriever dog was presented to the Veterinary College Hospital, Bangalore with a history of anorexia, vomition, diarrhoea, weight loss, dyschezia and melena since 15 days and not responding to the medical treatment given by a local Veterinarian. On physical examination animal had high fever, tachypnea and tachycardia. On abdominal palpation a hard mass was felt at Caudal abdomen. survey radiography of lateral abdomen revealed radiodense irregular mass which was further confirmed by barium study. Hematological parameters revealed Leukocytosis, characterized by neutrophilia and lymphopenia. It was decided for exploratory laparotomy.

Treatment and discussion

Dog was prepared for aseptic surgery and premedicated with Atropine sulphate @ 0.045 mg/kg body weight subcutaneous, pre-emptive analgesia with pentazocin @ 1 mg/kg intramuscular, sedation with triflupromazine HCl @ 1 mg/kg intravenous. After 10 minutes, anaesthesia was induced with 2.5% thiopental intravenously and maintained under halothane oxygen mixture. Coeliotomy was performed and upon exploration, intramural mass occluding the lumen was found at ascending colon (Fig.1). Extent of the involvement was delineated and Enterecctomy and Enteroanastamosis was accomplished (Fig.2). Abdomen was lavaged with warm normal saline followed by closing with No.1 polyglactin 910 (Vicryl No. 1 Johnson and Johnson, Aurangabad) in simple interrupted pattern, subcutaneous tissue and skin were approximated as per standard procedure.
The excised mass upon examination was hard with occlusion of intestinal lumen to the extent of 90%. The excised mass was preserved in neutral buffer solution and sent for histopathology which was confirmed as intestinal non hodgkin’s lymphoma. Post-operatively, ceftriaxone (20mg/kg) was administered for 7 days systemically. The animal was maintained on parental alimentation of ringers lactate 250 ml and Dextrose 5%, 250 ml daily twice along with Metranidazole 100 ml intravenous for three days. Animal was started with liquid diet on 4th post-operative day and solids on 7th post-operative day. Skin sutures were removed on 10th post-operative day and Animal recovered uneventfully. There was no recurrence of symptoms in one year period of study.

Floek et al., (2008) reported that Small intestinal adenoma may be amenable to surgery, but death from metastatic disease occurs within one year. Paoloni et al., (2002) reported ultrasonographic and clinicopathological findings in 21 dogs with intestinal adenoma and stated that most intestinal lesions were poorly echogenic and had an irregular lumen. Vezzali et al., (2010) reported histopathological classification of 171 (123 dogs and 48 cats) cases of canine and feline non-hodgkins lymphoma.

References

Summary
An unusual case of intestinal non hodgkin's lymphoma in dog and its successful management is reported.