INTESTINAL OBSTRUCTION IN DOGS – A review of five cases

S. Kavirajan, M. Shiju Simon and T.A. Kannan

Simon Pet Speciality Clinic,

No. 1, Subramaniyam Street, Krishnamoorthy Nagar, Chennai 600 118

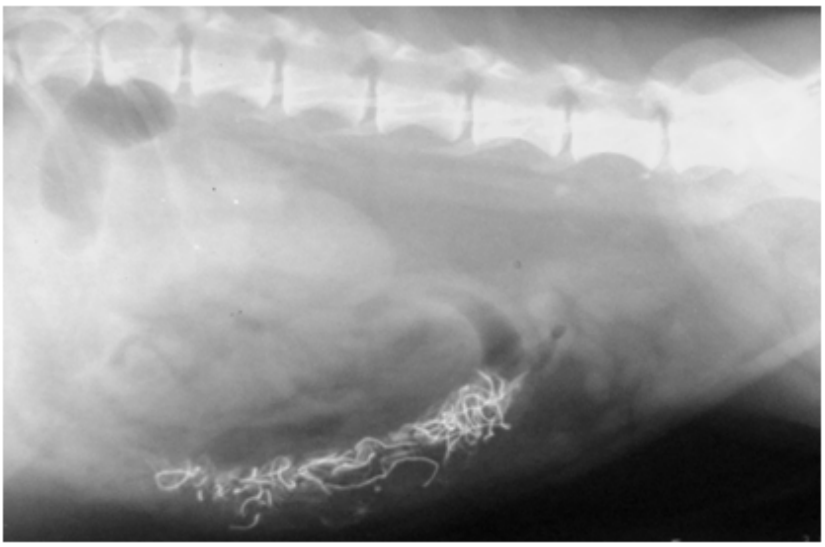
Received 18-5-2015 ***Accepted 25-11-2015***

Corresponding Author : drshijusimon@rediffmail.com

Puppies while playing or simply because of avidity, ingest a variety of foreign bodies. Ingested foreign bodies, which are not stopped in the mouth or oesophagus, enter into the stomach. Once a foreign body has passed through the pylorus, jejunum and ileum appear to be the most common sites of the small intestine obstruction (Capak, *et al*., 2001). Dogs and cats have indiscriminate eating habits and often hungrily swallow anything which seems even only vaguely edible. All age groups are susceptible to develop foreign body problems but obviously seen in young, playful dogs less than 2 years of age. Males ingest foreign bodies more often than females. Foreign bodies were mostly ingested by mongrels, followed by Dobermanns, Poodles, Cocker Spaniels and Rottweiler. Most of these ileus cases were found in March and October (Capak, *et al*., 2001). Obstruction of the intestines is always considered an emergency situation. The present paper discusses the surgical removal of foreign body.

CASE HISTORY AND CLINICAL OBSERVATIONS

Four male puppies (two Labrador, a Spitz and Rottweiler) aged between five to eight months and an eight year old Dachshund were presented with the history of vomiting, lethargy, depression and passing bloody mucoid stool (in one case). In another case owner saw that the puppy had swallowed a toy while playing. Physical examination revealed normal capillary refilling time, temperature, heart and respiration rates. Abdominal palpation in three cases revealed a mass at the cranial abdomen, suggestive of intestinal obstruction. Plain abdominal lateral radiography revealed radiolucent and radiopaque mass at the cranial abdomen (photo 1). After routine preoperative haemotological and serum biochemical evaluation, surgical correction was resorted to.



(Photo 1) Plain lateral abdominal radiography showingforeign materials

RESULTS AND DISCUSSION

In all cases, cefotoxime and meloxicam were administered @ 20 mg/kg b.wt and 0.2 mg/kg b.wt intravenously respectively, 2 hours prior to surgery. The dogs were premedicated with atropine sulphate @ 0.02 mg/kg b.wt intramuscularly. Mid-ventral abdomen was prepared aseptically for celiotomy. General anaesthesia was induced and maintained using propofol @ 5 mg/kg b.wt as and when it required through intravenously route. A mid-ventral celiotomy was made from xiphoid extending towards the pubis. Exploration revealed the sites of obstruction at the distal duodenum and cranial jejunum. The segment was isolated, exteriorized and soaked with normal saline. Incision was made on the antimesentric border over the foreign body and it was removed. In two cases (Labrador and Spitz) the foreign bodies were cloths, plastics, jem#clips and hairs (entancled), in Rottweiler it was toy, in another Labrador it was feeding nipple and in Dachshund it was hair (trichobezoar). During surgical procedure, suction was used to reduce the spillage. Intestinal viability was assessed by color, arterial pulsation and intestinal contraction. The enterotomy site was apposed using No. 3-0 size catgut in a continuous manner followed by cushing pattern. Linea alba and subcutis incision were apposed by No. 1 PGA. Skin incision was apposed with braided silk. All the animals had an uneventful recovery.

In all cases blood parameters were well within the normal range. Young puppies and kittens are mostly predisposed to intestinal obstruction due to foreign bodies because of their indiscriminate eating habits. In the present cases among the five, four were puppies and one was adult. These quele with swallowed foreign object was intestinal obstruction. Intestinal obstruction causes a variety of dramatic and life threatening electrolyte disturbances; also endotoxic and septic shock (Han *et al.,* 2008). Intestinal foreign bodies, apart from causing electrolyte disturbances, damage the intestinal walls and inhibit the normal propulsive and segmental motility (Hayes, 2009). Clinical signs vary depending upon the degree of obstruction and vascular damage. In case of complete obstruction , there will be extensive accumulation of fluid and gas proximal to site of obstruction; and if it is partial, animal may have diarrhea. Vomition may be profuse, as with complete obstruction of proximal small intestine or sporadic as with proximal obstruction of the distal small intestine. Vomiting causes dehydration and weakness. In the present cases the animals were not passing faeces, suggesting that it had complete obstruction; also it had frequent vomiting, leading to suspicion of obstruction. Mandeep *et al.*(2012) opined that the intestinal foreign bodies may block the mesenteric blood circulation, followed by necrosis. The necrotic area allows bacteria and their product pass into the peritoneal cavity and systemic circulation. In the present cases there were no necrotic areas in the intestine.

The treatment was more successful in dogs below 2 years of age (Capak *et al*., 2001). In the present study all animals recovered uneventfully because the owner presented early and diagnostic and surgical intervention were performed immediately. It is suggested that not only the puppies, adult might be also prone for foreign body obstruction. The best way to prevent the dog from ingesting the foreign body is to prevent the assess to the object that can be swallowed. Keep dangerous object away from the dog and allow dog to chew only toys that cannot be destroyed or swallowed.

REFERENCES :

Capak, D., Simpraga, M., Maticiæ, D., Bali R and Janoska, B. (2001). *Berl. Munch Tierarztl Wochenschr.* **114** (8):290-6.

Han, T. S., Kim, J.H., Cho, K., Park, J., Kim, G and Choi, S. H. (2008). *J. Biomed. Res.,* **9**:55–58.

Hayes, G (2009). *Journal of Small Animal Practice*., 50: 576–583.

Mandeep Atray, Mulinti Raghunath, Tarunbir Singh, and Narinder Singh Saini (2012).*Can. Vet. J.,***53**(8): 860–864.

❑