Indian J. Vet. Med. Vol. 40, No. 2, 2020 pp. 28-29

Clinical Articles

Diagnosis of intussusception in a pup

J. Parvathy, D. Chirayath, M. R. Krishna Nath and U. N. Pillai

Department of Veterinary Clinical Medicine, Ethics and Jurisprudence, College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala, 680651.

Abstract

This case report describes the diagnosis of intussusception in a 45 days old female Labrador puppy. The animal was presented with the history of acute blood tinged diarrhea, vomiting and rectal prolapse for a period of four days. Hematological examination of blood revealed leukocytosis and anemia. A confirmatory diagnosis of intestinal intussusception was made by abdominal ultrasonography. The animal was then stabilized and subjected to surgical correction.

Key words: Intussusception, Ultrasonography, Puppy.

An intussusception is the invagination of one segment of gastrointestinal tract into the lumen of the adjoining segment. The clinical signs associated with intussusception include intermittent vomiting, loss of appetite, mucoid bloody diarrhea and a palpable, cylinder shaped mass in cranial abdomen (Hall, 2017). Most of the cases of intussusception are idiopathic in young animals. Ultrasonography has totally replaced conventional radiography in accurate diagnosis of intestinal intussusception because of the non-specific radiographic findings associated with the latter (Patsikas *et al*., 2019).

Case History and Clinical Observations

A 45 days old female Labrador puppy was brought to University Veterinary Hospital, Kokkalai with a history of acute blood tinged diarrhea, vomiting and rectal prolapse for the last four days. The animal was treated locally by a veterinarian with antibiotics and fluids and the prolapsed rectum was reduced and sutured. The next day suture was removed, but diarrhea and rectal prolapse recurred.

The animal was weak and lethargic and mild discomfort was elicited on abdominal palpation. Abdominal palpation revealed a firm sausage like mass in cranial abdomen. A soft tissue opacity could be identified on cranial abdomen in plain radiograph (Fig. 1). In transverse abdominal ultrasonography, a series of concentric rings of folded layers of intestinal wall with a characteristic target like or bull's- eye appearance could be noticed (Fig. 2). The blood picture showed leukocytosis (23.4×10³/µL) and anemia (TEC: 3.26×10^6/µL; Hb: 6.5 g/dL). The history, clinical signs, and ultrasonographic findings were suggestive of intestinal intussusception. The animal was stabilized with fluids and supportive treatment and surgical correction was performed.

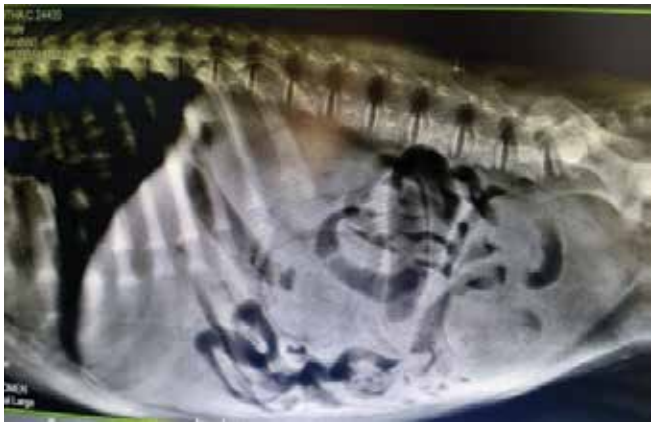

Fig 1: Soft tissue opacity in plain radiograph

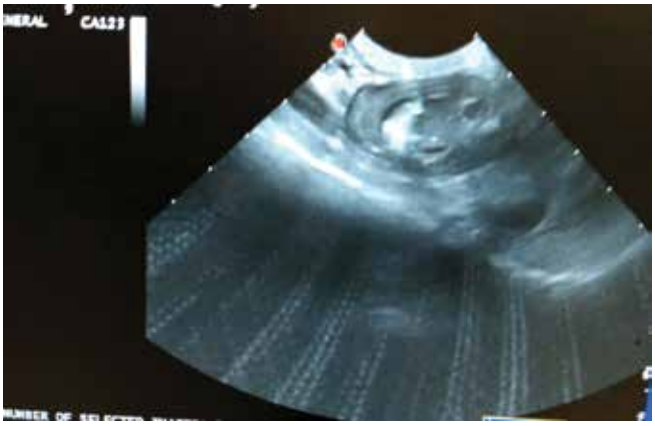

Fig 2: Bull's eye- sign in ultrasonography

Corresponding author: parvathyjaya1994@gmail.com

Discussion

The most likely predisposing factor of intussusception in young dogs is an acute enteritis or gastroenteritis. The intussusception can be palpable as a defined, firm tubular or sausage like structure on abdominal palpation (Patsikas *et al*., 2003). Accumulation of gas proximal to the intussusception may be observed on plain radiography (Khan *et al*., 2011). In transverse abdominal ultrasonography, the intestinal wall layers create hyperechoic and hypoechoic concentric rings with a hyperechoic centre. This is often referred to as "target-like lesion" or "multiple concentric rings sign" (Emery *et al*., 2015). Ultrasonography is a sensitive and specific method of accurate diagnosis of intestinal intussusception in young dogs (Pramod *et al*., 2017). It was concluded that ultrasonography can be used as a sensitive and specific method for diagnosis of intussusception in dogs.

References

Emery, L., Biller, D., Nuth, E. and Haynes, A. 2015. Ultrasonographic diagnosis of gastroesophageal intussusception in a 7 week old German shepherd. *Israel J. Vet. Med.:* **70**: 41-46.

Hall, E.J. 2017, Diseases of Large Intestine. In:Textbook of Veterinary Internal Medicine: Diseases of the Dog and the Cat. Ettinger, S.J., Feldman, E.C. and Cote, E. (eds.) VIIIedn., Elsevier, Missouri, pp. 3821-92.

Khan, M.A., Ali, M.M., Azeem, S., Safdar, A., Ziaullah, I.A. and Sajjad, M.T. 2011. Ileocolic intussusception in a cocker spaniel dog: a case report. *J. Anim. Plant Sci.:* **21**: 635-37.

Pramod, U., Sooryadas, S., Dinesh, P.T., Jineshkumar, N.S., Bipin, K.C., John, M.K.D. and Venugopal, S.K. 2017. Diagnostic characteristics of double intussusception in a non descript dog. *Indian J. Nat. Sci.:* **8**: 12598-602.

Patsikas, M.N., Papazoglou, L.G. and Paraskevas, G.K. 2019. Current views in the diagnosis and treatment of intestinal intussusception. *Top. Companion Anim. Med.:* **37**: 1- 38.

Patsikas, M.N., Jakovljevic, S., Moustardas, N., Papazoglou, L.G., Kazakos, G.M. and Dessiris, A.K. 2003. Ultrasonographic signs of intestinal intussusception associated with acute enteritis or gastroenteritis in 19 young dogs. *J. Am. Anim. Hosp. Assoc.:* **39**: 57-66.

Received : 24.07.2020
Accepted : 18.10.2020