

# ULTRASONOGRAPHIC DIAGNOSIS AND SURGICAL MANAGEMENT OF INTUSSUSCEPTION IN TWO DOGS

Pankaj Jain,<sup>1</sup> Apra Shahi<sup>2</sup> and V.P. Chandrapuia<sup>3</sup>

<sup>1</sup>Ph.D. scholar, <sup>2</sup>Associate Professor, <sup>3</sup>Professor and Head, Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry,

Nanaji Deshmukh Veterinary Science University, Jabalpur (M.P.)-482001.

[Received: 03.9.2014; Accepted: 24.4.2015]

## Introduction

Intussusception, also known as telescoping of intestine, is an invagination of a portion of the intestine into the distal segment adjacent to it (Kealy *et al.*, 2011). The most common intussusception is ileocolic, although it may occur within the small or large intestine. It is more commonly seen in, young dogs and is often associated with hypermotility of the intestine, enteritis, or parasitism (Verbanck *et al.*, 1986). If not diagnosed in early stage, this may prove fatal to life due to perforation of intestine and loss of viability of significant portion of intestine.

## History and Clinical Observation

Two male dogs of 5 years (case 1) and 6 months (case 2) age were presented in Teaching Veterinary Clinical Complex, with a history of anorexia, vomiting, constipation, cachexia, abdominal pain, distended abdomen, pale mucous membrane and melena with mucus from last 10-15 days. Animals were treated earlier for gastritis with no response. Rectal temperature was found slightly elevated in both cases. Mucous membrane of eye was pale indicating anaemia.

## Treatment and Discussion

Haemato-biochemical picture was suggestive of anaemia, hypoproteinemia with normal liver and kidney function. Ultrasonography in first case revealed multiple concentric rings along with a thickened hypoechoic outer rim and echogenic center in transverse plane. The

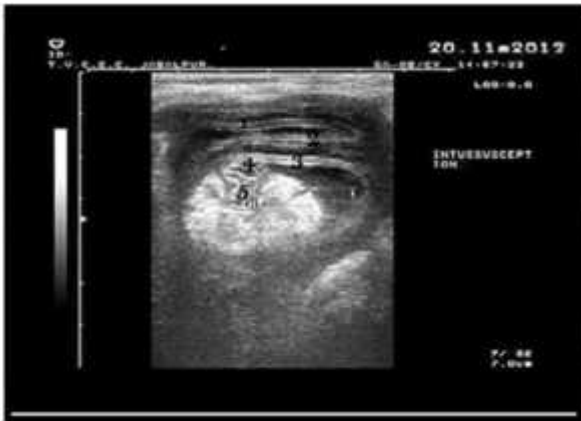
condition was diagnosed as 3 layers intussusceptions (Fig. 1 & 2). In second case hyperechoic center followed by several hypo and hyperechoic layers in sagittal plane was present and it was diagnosed as five layers intussusceptions (Fig 3 & 4). Animals were prepared for surgery by fluid therapy i.e. Inj DNS @ 30 ml /kg i.v. q 24 h for 3 days, Inj. Ceftriaxone @ 20 mg/Kg i.m. q 24 h for 3 days and iron supplementation. Animals were anaesthetized using Inj. Atropine Sulfate @ 0.02-0.04 mg/ kg i. m, Inj. Xylazine Hydrochloride @ 1 mg/ kg i.m and Inj. Kitamine Hydrochloride @ 8 mg/ kg i.m. Mid line laparotomies were performed in both cases and affected part of intestine was identified by thorough examination of intestine. As it was not possible to correct the intussusceptions manually so enterectomy followed by end to end anastomosis by Maunsell mesenteric sutures followed by Conell sutures in first layer and Cushing sutures in second layer was done (fig 5 & 6). Approximately 12''-15'' necrosed intestinal segment was resected in case 2 along with repair of intestinal perforations. Peritoneal lavage with Ceftriaxone mixed with NS was done. Post operatively animals were maintained by fluid therapy for first three days followed by liquid, semisolid and then normal solid diets along with a course of antibiotic, analgesics and corticosteroids. Skin sutures were removed 10 days after surgery. In spite of all efforts, second case died on 3<sup>rd</sup> day post operatively due to septic peritonitis.



**Fig. 1: Three layers intussusceptions in transverse plane (case 1)**



**Fig. 2: Depicting telescoping of intestine (case 1)**



**Fig. 3: Five layers intussusception in sagittal plane (case 2)**



**Fig. 4: Depicting 12"-15" necrosed perforated segment of intestine in into**



**Fig. 5: After 2<sup>nd</sup> layer of Cushing sutures (case 1)**



**Fig. 6: After end to end anastomosis (case 2)**

## References

- Verbanck, J.J., Rutgeerts, L.J. and Douterlungne, P.H. (1986). Sonographic and pathogenetic correlations in intussusceptions of the bowel. *J. of Clin.Ultraso.*, **14**: 393.
- Kealy, J.K., McAllister, H. and Graham, J.P. (2011). Diagnostic radiology and ultrasonography of the dog and cat, 5<sup>th</sup> ed., Elsevier Publishing Co., USA, Pp.102.

### **LIFE MEMBERSHIP**

Membership of the Society is open to Veterinary / Medical Graduates who are actively engaged in the field of Canine Practice. For the membership, please write to **Prof. (Dr.) A.K. Srivastava**, Secretary General or **Dr. Shrish Chandra**, Treasurer, Indian Society for Advancement of Canine Practice, 21/5, Sector-21, Indira Nagar, Lucknow – 226 016 (U.P.) India.

The Life Membership Fee is Rs.1000.00 / \$ 25/ £ 18.

**Note: Down Load the L.M. Form from Website: [www.isacp.in](http://www.isacp.in)**