ULTRASONOGRAPHIC DIAGNOSIS AND SURGICAL MANAGEMENT OF INTESTINAL INTUSSUSCEPTION IN A COW


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Introduction: Intussusception in cattle is rare except in young calves when it is often secondary to diarrhea, however, heifer appears to be more prone on account of hyperperistalsis.

Objective: This paper presents a case of intestinal intussusception in a cow that was diagnosed with the use of ultrasonography and treated surgically by resection and end-to-end anastomosis.

Material and methods: A cross bred cow was presented with a history of anorexia, suspended rumination, reduced defecation and bilateral abdominal distention from last one week. The animal was in poor physical condition, but vital signs were near normal. Rectal examination revealed empty rectum containing scanty tenacious foul-smelling faeces.

B-mode ultrasonography of the abdomen was performed in standing position, using 3.5 and 5.0 MHz convex probes. The area from the tuber coxae to the eighth intercostal space and from the transverse processes of lumbar vertebrae to the linea alba on the right side of the abdomen was thoroughly scanned. The appearance of loops of small intestine and their diameter, contents and motility were assessed.

Results and discussion: The loops of small intestine proximally to the intussuscepted mass appeared to be dilated, echogenic and rarely anechoic. The ultrasonographic image revealed fluid distention of the more proximal small intestine, usually with normal or nearly normal wall thickness and little or no peristaltic activity.

Right paralumbar region was prepared and laparotomy was performed under general anaesthesia after induction with 5% isofluorane and maintained with 2% isofluorane with 2.5% oxygen. The intussusception mass was explored and exteriorized carefully. Enterectomy and entero-anastomosis was performed as per the standard procedure. Postoperatively parental antibiotics, analgesics and adequate intravenous fluid was administered. The day after surgery, animal passed scanty faeces and the appetite was increased. The consistency of the faeces gradually normalized.

Conclusions: Ultrasonography is an excellent diagnostic procedure for abdominal disorders. Sometimes it is difficult to locate intestinal obstruction when the site is often at a greater distance from the abdominal wall than the penetration capacity of the transducer. Inspite of this, ultrasonography in cattle is rapid, non-invasive procedure which allows identification of the type and localization of the lesion prior to laparotomy.

Keywords: Ultrasonography; Intussusception.