the JAK-STAT pathway as well as the MAPK pathway in canine cells. Upon administration of cIL-31 to dogs, a significant decrease in pruritic behaviours was observed. Cytopoint breaks the cycle of itch (Marsella *et al.,* 2012) by binding to IL-31 circulating in the body.

Summary

Successful management of atopic dermatitis in dog using Cytopoint has been reported. Subcutaneous application of Cytopoint appeared effectively reduced pruritus.

References

Cook, C.P., Scott, D.W., Miller, W.H.,Kirker, J.E., and Cobb, S.M. (2004) Treatment of canine atopic dermatitis with cetirizine, a second generation antihistamine: A single-blinded, placebo-controlled study. *Can Vet J.***45**(5): 414–417.

Gonzales A.J., Humphrey W.R., Messamore J.E., Fleck, T.J., Fici, G.J., Shelly, J.A., Teel, J.F., Bammert, G.F., Dunham, S.A., Fuller, T.E., and McCall, R.B. (2013) Interleukin-31: its role in canine pruritus and naturally occurring canine atopic dermatitis. *Vet Dermatol.* **24**(1): 48-53.

Hillier A., and Griffin, C.E. (2001) The ACVD task force on canine atopic dermatitis: Incidence and prevalence. *Vet Immunol Immunopathol.* **81**:147–151.

Marsella, R., Sousa, C.A., Gonzales, A.J., and Fadok, V.A. (2012) Current understanding of the pathophysiologic mechanisms of canine atopic dermatitis. *J Am Vet Med Assoc.* **241**(2): 194-207.

Olivry, T.,and Bäumer, W. (2015) *Atopic itch in dogs: pharmacology and modeling.*In: Cowan A., and Yosipovitch, G. (eds). Pharmacology of Itch, Handbook of Experimental Pharmacology, Springer publishing, Berlin, Heidelberg, pp 357-369.

Olivry, T., DeBoer, D.J., Favrot, C., Jackson, H.A., Mueller, R.S.,Nuttal, T., and Prelaud, P. (2010) Treatment of canine atopic dermatitis: 2010 clinical practice guidelines from the International Task Force on Canine Atopic Dermatitis. *Vet Dermatol.***21**(3): 233-248.

Indian Vet. J., October 2019, 96 (10) : 76 - 78

Intussusception and its Surgical Management Under General Anaestheisa in a Cow – A Case Report

S.Vigneshwaran[1], S. Senthilkumar, S. Dharmaceelan, S.Kathirvel, A. Kumaresan and K.Jayakumar

Department of Veterinary Surgery and Radiology, Veterinary College and Research Institute, TANUVAS, Namakkal-637002, Tamil Nadu.

(Received : June, 2019 **223/19** Accepted : July, 2019)

Abstract

Six years old Jersey cross bred cow was presented with the history of colic signs followed by anorexia and cessation of defecation. Rectal examination revealed empty rectum with distended intestinal loops and a palpable mass in the right ventral abdomen. Right flank laprotomy was performed under general anaesthesia with dexmedetomidine premedication at the dose rate of 1µg per kg body weight followed by double drip induction and isoflurane maintenance anaesthesia. Enterectomy and enteroanastamosis was performed as per standard surgical procedure. Laprotomy wound closed routinely and the animal made an uneventful recovery.

Key words: Laprotomy, Enterectomy and enteroanastamosis.

Intussusception, the invagination of one segment of bowel into the lumen of the adjacent distal segment is the most common cause of intestinal obstruction in cross-bred cattle but seen occasionally in buffaloes (Smith, 1984). Dexmedetomidine newer alpha-2 agonist had very selective affinity towards alpha-2 receptor provide analgesia was better than morphine and advocated its use for pain management in animals after surgery and also could be a

[1]*Corresponding author* : Email: vigneshvet@gmail.com

valuable as a part of a multi-modal analgesic protocol requiring effective pain management (Valtolina *et al.,* 2009). The use of dexmedetomidine in large animals was very limited. The present study explains the successful management of Intussusception under dexmedetomidine premedication under general anaesthesia.

Case History and Observations

A six year old Jersey cross bred cow was presented with the history of colic signs followed by anorexia, cessation of defecation and bilateral ventral distension of abdomen with no significant alterations in the physiological parameters. Rectal examination revealed the presence of mucus stained faeces with distended intestinal loops and stretched mesentery. The case was tentatively diagnosed as intussusception. Animal was prepared for right flank laprotomy under general Anaesthesia. Animal was starved for 24hrs preoperatively to reduce intra operative complications. Animal was maintained with adequate intravenous fluid therapy during the starvation period. Preoperative hematological parameters showed the levels were within the normal limits.

Treatment and Discussion

Right flank laprotomy was performed under dexmedetomidine premedication at the dose rate of 1 µg per kg body weight and the animal was restrained in left lateral recumbency. Induction of anaesthesia using double drip solution containing glycerolguaiacolate 50mg/ml and ketamine 2mg/kg in 5% DNS. Oroendotracheal intubation was done using Murphy cuffed endotracheal tube to avoid aspiration. The animal was maintained with isoflurane 5% initially followed by 2% isoflurane with fresh gas flow rate of 3 to 5 lit /min. There were no significant changes observed in haematological parameters during anaesthesia.

Right flank incision confirmed the case as intussusception which was exteriorized carefully and found to be jejunum. Enterectomy and enteroanastamosis was performed as per standard surgical procedure. Enteroanastamosis was carried out by simple interrupted suture pattern using polyglactin 910(No-1). The patency was checked for the perfect sealing and any leakage from the edges and the intestine was repositioned into the abdomen. The abdominal muscles were closed in a routine manner. Adequate intravenous fluids and antibiotics were given post operatively for 3-5 days. Animal passed dung 12hrs after surgery and rumen motility and rumination regained after three days. Regular wound dressing was done with 5% povidone-iodine and the sutures were removed on the 11th day and the animals were discharged.

Intestinal obstruction unlike in horses is not immediately fatal in ruminants and the course may drag out for 8-14 days (Radostits *et.al*, 2000). Intussusception usually occurs in the jejunum and ileum and rarely in colon (Dharmaceelan *et. al,* 2008). Occurrence of intussusception was more in small intestine compared to large intestine with involvement of jejunum and ileum, which could be due to their longer length and loose attachment (Kushwaha *et al,* 2012). In the present case involvement of jejunum was observed which could be due to their loose attachment. Feeding of very cold water, worm infestation are considered to be the predisposing factors for this condition (Yadhav *et al.,* 2009) and the present case was found to be positive for *Amphistome* which might be the etiology for this case. The end to end anastamosis with interrupted suture pattern provided adequate stability and secure closure. The use of dexmedetomidine at the dose rate of 1µg per kg as preanaesthetic for cattle provided adequate sedation and smooth induction. There were no significant changes in haematological parameters also observed because of its selectivity affinity. This could be attributed to the findings of Lin *et.al,* (2008). The reduced requirement of inhalant anaesthetic and improved recovery quality also suggest that dexmedetomidine had preemptive analgesic property. This present reports successful surgical management of Intussusception under general anaesthesia in a cow.

Summary

Right flank laprotomy under general anaesthesia founds suitable for surgical correction of intussusception in cattle. Dexmedetomidine premedication favors smooth induction and

better recovery. This paper reports the successful surgical management of intussusception under general anaesthesia in a cow.

References

Dharmaceelan, S., Senthilkumar, S., Jayakumar, K., Kathirvel, S., Kumaresan, A. and Rajendran, N. (**2008**) Jejuno- Jejunal Intussusception in Kangeyam Bullocks: A Report of Two Cases. *Intas polivet* **9**: 149-150.

Kushwaha, R. B., Gupta, A. K., Bhadwal, M. S., Bhardwaj, H. R., Tripathi, A. K., and Kumar, S. (2012) Intestinal obstruction due to intussusception in cattle: a clinical study of twenty cases. *Indian J. Vet. Surg.*, **33:** 63-65.

Lin, G.Y., Robben, H.J., Murerll, J.C., Aspegren, J., Mckusick, C.B., and Hellebrekers, L.J. (2008) Dexmedetomidine constant rate infusion for 24 hours during and after propofol or isoflurane anaesthesia in dogs. *Vet. Anaes. Analg.,* **35:** 141-153.

Radostits, O.M.; Maythew, I.G. and Houston, D.M. (2000) In: *Veterinary Clinical Examination and Diagnosis*. W.B. Saunders, London p: 426-28.

Smith, D.F. (1984) Bovine intestinal surgery. *Mod. Vet. Pract.,* **65**: 909-912.

Valtolina, C., Robben, J.H., Uilenreef, J., Murrell, J.C., Aspegren, J., McKusick, B.C., and Hellebrekers, L. J. (2009) Clinical evaluation of the efficacy and safety of a constant rate infusion of dexmedetomidine for postoperative pain management in dogs. *Vet. Anaesth. Analg.,* **36:** 369-383.

Yadav, G.U., Bhikane, A.U., Aher, V.D., Thorat, M.G., Marandeya, N.M. and Masae, P.S. (2009) Standardization of diagnostic procedures and operative methodology in clinical cases of intussusception in bovines. *Intas Polivet* **10**: 4-7.

Indian Vet. J., October 2019, 96 (10) : 78 - 80

Meloxicam Toxicity in Labrador Dog Due to Dispensing Error and its Reversal by Misoprostol

K. Kannan, M. Saravanan[1], P.K. Ram Kumar, T. Arul Kumar, S. Senthil Kumar and N. Premalatha

Veterinary Clinical Complex, Veterinary College and Research Institute, TANUVAS, Orathanadu, Thanjavur-614 625, Tamil Nadu.

(Received : May, 2019 **184/19** Accepted : July, 2019)

Abstract

Medication error is a failure in treatment process and its frequency of occurrence remain unknown. In the present paper, a Labrador dog was treated for pyrexia with meloxicam overdosing that was brought to the hospital with history of vomition, anorexia and voiding off tarry faeces. The dog underwent physical, parasitological, haematological and biochemical examination, urinalysis, diagnostic X-ray and abdominal ultrasound. Elevation of renal biomarkers, ultrasonographic changes in corticomedullary junction of left kidney was prognostic for meloxicam toxicity. Reversal of intoxication with misoprostol and supportive treatment and post treatment improvement indicated the importance of medication error by faulty dispensing in the present article.

[1]*Corresponding author* : Email : sara82vet@yahoo.com

Key words: Meloxicam, Misoprostol, Medication error, dogs.

Meloxicam is one of the most commonly used analgesics in veterinary medicine which is preferential a cyclooxygenase type 2 inhibitor (Khan SA and Mclean MK, 2012). Intoxication in small animals is primarily associated with off-label usage, accidental ingestion (Caloni *et al*., 2014). A dispensing error occurs due to discrepancy between a prescription and the medicine that the pharmacy delivers to the patient (Ka-Chun *et al*., 2009). In this paper, accidental meloxicam toxicity which occurs due to faulty dispensing of drugs is discussed.

Case History and Observations

A six year old Labrador dog was presented to Small Animal Medicine Unit of TVCC, VCRI Orathanadu with the history of anorexia, vomiting and passing black tarry faeces. Previously