



ISSN: 2456-2912

VET 2024; 9(1): 33-35

© 2024 VET

www.veterinarypaper.com

Received: 10-10-2023

Accepted: 07-11-2023

AK Patel

M.V.Sc., Scholar, Department of Veterinary Surgery and Radiology, College of Veterinary Science & AH, Kamdhenu University, Anand, Gujarat, India

JK Mahla

Assistant Professor, Department of Veterinary Surgery and Radiology, College of Veterinary Science & AH, Kamdhenu University, Anand, Gujarat, India

MA Gamit

Assistant Professor, Department of Veterinary Surgery and Radiology, College of Veterinary Science & AH, Kamdhenu University, Anand, Gujarat, India

AS Bhalodi

Assistant Professor, Department of Veterinary Surgery and Radiology, College of Veterinary Science & AH, Kamdhenu University, Anand, Gujarat, India

AJ Mayani

M.V.Sc., Scholar, Department of Veterinary Surgery and Radiology, College of Veterinary Science & AH, Kamdhenu University, Anand, Gujarat, India

Corresponding Author:

AK Patel

M.V.Sc., Scholar, Department of Veterinary Surgery and Radiology, College of Veterinary Science & AH, Kamdhenu University, Anand, Gujarat, India

X-ray assisted reconstructive surgical management of atresia ANI ET Recti in Gir calf (*Bos indicus*) with a rare incidence of Anury

AK Patel, JK Mahla, MA Gamit, AS Bhalodi and AJ Mayani

DOI: <https://doi.org/10.22271/veterinary.2024.v9.i1a.859>

Abstract

A 2 days old female calf presented with straining and bulged abdomen with absence of rectal opening along with anury. First attempt of surgical procedure failed to establish normal tract of rectum. The calf had no tail - a rare congenital birth defect. Surgical correction of atresia ANI ET Recti was carried after lateral view x-ray, which indicated location and depth of blind pouch of rectum. Surgical correction was carried out by putting slight larger criss-cross incision then previous incision under sedative effect of 0.1 mg/kg xylazine along with local infiltration of lignocaine of 2%. Rectal mucosa was finding out surgically under guidance of x-ray then stretched and fixed with external skin edges. Rectal enema was carried out to pass out muconium. Inj. Amoxicillin Clavulanate @ 15mg/kg along with Inj. Meloxicam @ 0.3mg/kg was administered intramuscularly for 5 days along with antiseptic dressing and skin sutures were removed on 12th day.

Keywords: Anury, Atresia ANI ET Recti, Congenital absence, reconstructive surgical management

Introduction

Congenital absence of tail (anury) and atresia ANI ET Recti in female Gir calf (*Bos indicus*) was a rare incidence and not yet reported, whereas similar incidence was reported in camel (Anwar and Purohit, 2012) ^[1] and buffalo calf (Vala *et al.*, 2017) ^[4].

The prevalence of *atresia ani/atresia ani et recti* in calves were reported 23% at Veterinary Teaching Hospital & Department of Surgery and Obstetrics, Bangladesh Agricultural University among the surgical affections in new born calves during study period of June 2009 to June 2011 (Hossain *et al.*, 2014) ^[2].

Suthar *et al.* (2010) ^[3] reported surgical management of atresia ani by using circular incision at perianal region followed by 2% lignocaine infiltration, after patency of muconium established rectal mucosa was sutured with skin by black braided silk.

Case history

Two days old female Gir calf was presented with absence of tail (Fig.1) and rectal opening (Atresia ANI); Atresia ANI corrective surgery was attempted before 12 hrs. But failed to establish rectal path, hence case was referred to Department of Veterinary & Radiology, Veterinary College, Anand. A calf was presented with abdominal bulging and straining for defecation. No bulge area was observed at perineal region despite of abdominal pressure application. Physically the calf was alert and active with normal walking, Normal micturition and there was no recto-vaginal fistula.

Surgical Management

Before second surgical attempt of atresia ani, the lateral view radiograph of abdomen was carried out to find out location and rectal position of blind pouch of rectum (Fig.2). The calf was sedated with xylazine hydrochloride at a dose rate of 0.1mg/kg body weight intravenously and placed in lateral recumbency. The surgical site was scrubbed with povidone iodine 7.5% and infiltration of 2% lidocaine hydrochloride (5 ml) was carried out at surgical site.

A slightly larger criss-cross incision was made on old incision site, around 2 inches deep surgical dissection was carried out by avoiding surrounding muscles to locate rectum and rectal mucosa was stretched and sutured with the cut edges of the anal orifice all around (360 degrees) using simple interrupted sutures with USP 1-0 non-absorbable (Nylon) suture material by placing the knots outside. After corrective surgery of atresia ani et recti, animal was failed to pass muconium even after abnominal pressure and only hard faeces was palpated by tip of finger insertion; hence rectal enema was carried out to pass out muconium (Fig. 5).

Post-operative care and management

Regular cleaning and antiseptic dressing of surgical site with liquid povidone iodine 5% and ointment Himax was applied twice a day till wound healing. Inj. Amoxicillin Clavulanate was administered intramuscularly @ 15mg/kg along with Inj. Meloxicam @ 0.3mg/kg for 5 days. The skin sutures were removed on 12 days post-operatively.



Fig 1: Anury with atresia ani et recti



Fig 2: X-ray of Anury with atresia ani et recti



Fig 3: Surgical intervention of atresia ani et recti



Fig 4: Surgical intervention of atresia ani et recti

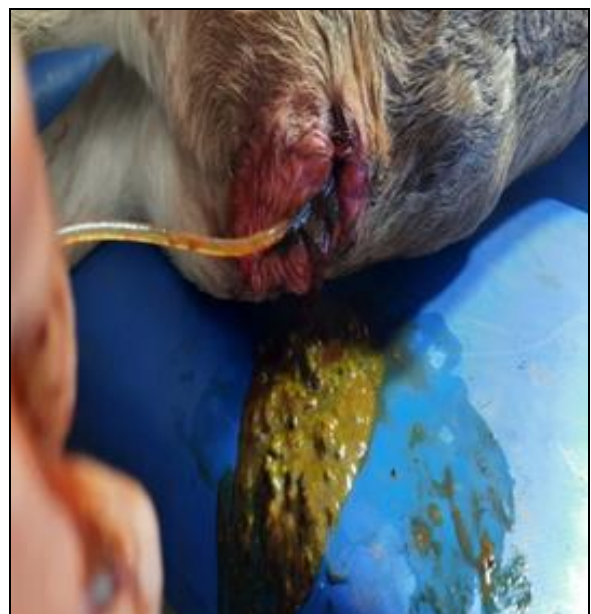


Fig 5: Muconium passed after rectal enema

Summary

Lateral view x-ray is essential for second surgical attempt of reconstructive management of atresia ani, as it helped which helped to plan accordingly for surgical reconstructive management of atresia ani.

Conclusion

Anury is rarely reported, while atresia ani et recti along with anury is rare of rarest case and reconstructive surgery provides new path for faeces and enhance life of defected neonatal calf.

Reference

1. Anwar S, Purohit GN. Rare congenital absence of tail (ANURY) and anus (Atresia Ani) in male camel (*Camelus dromedarius*) calf. *Open Veterinary Journal*. 2012;2(1):69-71.
2. Hossain MB, Hashim MA, Hossain MA, Sabrin MS. Prevalence of atresia ani in new born calves and their surgical management. *Bangladesh Journal of Veterinary Medicine*. 2014;12(1):41-45.
3. Suthar DN, Chaudhary SR, Patel PB, Mistry JN, Patel JB. Surgical management of atresia ani in a cow calf. *Veterinary World*. 2010;3(8):380.
4. Vala AK, Sama AI, Gohil KM, Kelawala DN, Senthilkumar S, Kalasariya RM, *et al.* Surgical management of atresia ani et recti with congenital absence of tail (ANURY) in a male buffalo calf. *Buffalo Bulletin*. 2017;36(4):699-702.
5. Schild C, Armendano JI, Liboreiro M, Bresky F, Morrell E, Odriozola E, Cantón G. Caudal vena cava thrombosis in a dairy cow (*Bos taurus*) in Argentina. *Ciência Rural*. 2017 May 4;47.