CORRECTION OF ATRESIA ANI AND RECTO-VAGINAL FISTULA IN A BUFFALO CALF - A CASE REPORT

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ABSTRACT

A day old buffalo calf was presented with atresia ani and recto vaginal fistula to the Teaching Veterinary Clinical Complex, College of Veterinary Science, Proddatur. Under epidural anaesthesia the congenital defects were corrected surgically. The calf was treated post operatively with Ceftriaxone injection at the dose rate of 20 mg/kg for 5 consecutive days and Meloxicam injection at the dose rate of 0.3 mg/kg for 3 days. The correction of the condition, its management and successful recovery is reported.

Keywords: buffalo calf, *Bubalus bubalis*, atresia ani, recto vaginal fistula, congenital absence

INTRODUCTION

Atresia ani refers to congenital absence or closure of normal body opening or tubular structure. Intestinal atresia has been reported as a common congenital defect in domestic mammals (Vander and Tibboel, 1980) and in human beings (Shakoor *et al*., 2012). The most common malformations are atresia coli and atresia ani. Recto-vaginal fistula is another common congenital defect usually observed along with atresia ani resulting communication between rectum and vagina in female calves. In such condition vulva, if normal act as common orifice for both digestive and urogenital tract (Shakoor *et al*., 2012). Several anatomical variations of atresia ani have been classified from type I through to type IV, but all result in an abnormal anal outlet and/or rerouting of feces from the rectum to another outlet. Pets with type I atresia ani, otherwise termed imperforate anus, have a membrane over the anal opening, but the rectum ends as a blind pouch just cranial to the anal opening. Type II is similar to type I, but the rectal pouch ends much more cranially to the anal opening. In type III, or rectal atresia, the rectum ends in a blind-ending pouch in the abdomen (cranial to the pelvis), and the distal rectum and anus are normal. Type IV atresia ani only occurs in females and may occur with or without imperforate anus; it is characterized by a persistent communication between the rectum and vagina (rectovaginal fistula) or urethra (rectourethral fistula) (Ettinger and Feldman, 2005).

CASE HISTORY AND OBSERVATIONS

A day old buffalo calf was presented with the clinical signs of absence of anal orifice and defecating through vulval orifice, which was indicative of atresia ani and recto-vaginal fistula. (Figure 1) The animal was straining while

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defecating. On per vaginal examination, a slit communicating the roof of vagina and portion of rectum could be palpated. The case was tentatively diagnosed as Atresia ani with recto-vaginal fistula. It was decided to perform surgical correction.

TREATMENT

The site was prepared aseptically and 2% of Lignocaine was used for inducing epidural anaesthesia. Cruciate incision was made at the level of rectal bulge. Blunt dissection was performed and the blind end of the rectum was located and anchored to the skin. Through the vulval orifice

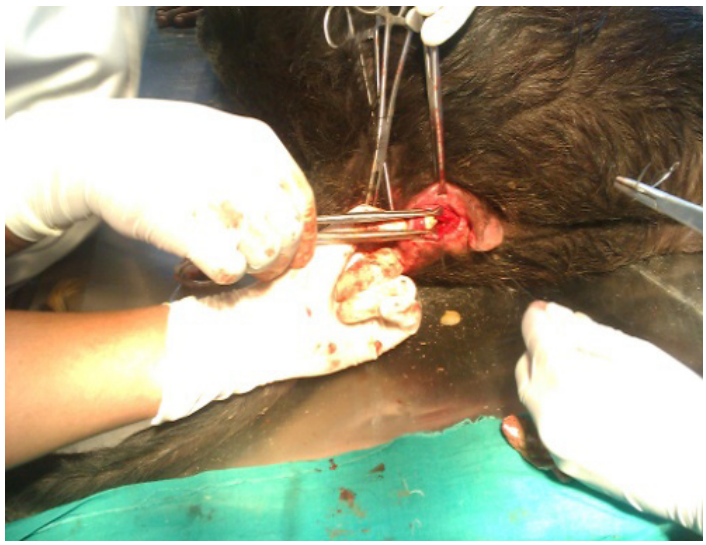

Figure 1. Identifying the recto vaginal fistula.

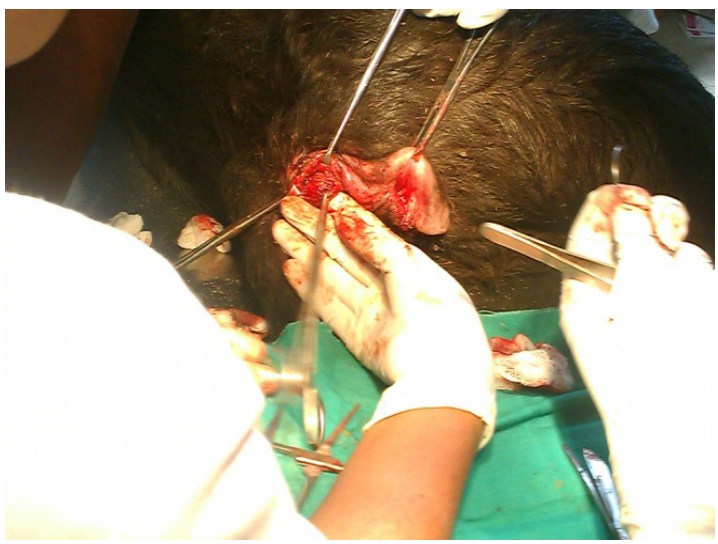

Figure 2. Correction of atresia ani.

the fistulous slit communicating with rectum was identified and sutured with chromic catgut no.1. The anchored blind rectum was incised and the mucosal edge was sutured to the skin using black braided silk no.1 (Figure 2).

The newly constructed anal orifice was kept patent using PVC tube for uninterrupted defecation and to protect the sutures. Ceftriaxone injection at the dose rate of 20 mg/kg for 5 consecutive days and Meloxicam injection at the dose rate of 0.3 mg/kg for 3 days were administered by intravenous and intramuscular routes respectively for five days. Topical application of ointment Lorexane was done. The sutures were removed on fourteenth post operative day. The animal recovered uneventfully. There was no recurrence at the end of one month.

DISCUSSION

Atresia ani is a commonly found deformity owing to genetic disorders. Atresia ani may develop when the dorsal part of the cloacal plate fails to form. Recto-vaginal fistula is considered as embryological failure of the uro rectal septum to separate the cloaca into urethrovesical and rectal segments (Johnson *et al*., 1980). The resulting fistula connects the dorsal wall of the vagina with the ventral portion of the terminal rectum and provides a path for defecation. Recto-vaginal defects may introduce fecal material urine and air into the vagina leading to vaginitis, cervicitis, endometritis, failure of conception and repeat breeding. Complications of this defect leads to economic losses, especially in heifers. (Patil *et al*., 2011).

Surgical intervention is the only possible solution to cope with congenital anomalies in animals (Shakoor *et al*., 2012). In the case presented, surgical intervention gave successful results.

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