

Congenital Rectovaginal Fistula with Atresia Ani Et Recti in a Calf

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ABSTRACT

The present paper deals with technique of correction of congenital anomaly of rectovaginal fistula with atresia ani et recti in a calf. Epidural anaesthesia was given with 2% lignocaine hcl @ 2 mg/ kg body weight. In the present case rectovaginal fistula was identified too cranially along with peripheral adhesions and laparotomy was chosen to approach rectal end. Laparotomy was done on left flank and the caudal alimentary tract was identified. The rectum was fixed to artificial opening of anus. The rectovaginal fistula was repaired by placing interrupted sutures in roof of vagina.

Keywords: Calf, recto-vaginal fistula and atresia ani

Congenital rectovaginal fistula is characterized by the communication between the dorsal wall of the vagina and the ventral portion of the rectum, so that the vulva functions as a common opening to the urogenital and gastrointestinal tracts. Atresia ani is a congenital anomaly observed in calves, lambs and kids. Some authors (Newman *et al.* 1999; Johnson *et al.* 1980; Prieur and Dargatz, 1984) state that failure of the anal membrane to perforate, failure of the bowel to canalize, failure of the proctodeum to invaginate, and interruption of the blood supply to the anus or to the intestine during embryonic development can produce atresia ani or intestinal atresia, respectively. Atresia ani may be a condition on its own or associated with atresia or agenesis of other parts like atresia recti, rectovaginal fistula, rectocystic fistula, vaginourethral agenesis, taillessness, hypospadias, cleft

scrota etc (Tyagi and Singh, 1993). Atresia ani or atresia recti have been associated with abnormal chromosomes.

Usually, the abnormality is associated with type II atresia ani, in which the rectum ends as a blind pouch immediately cranial to the imperforated anus. However, the present case was not such and it was more complicated in terms of the too cranial position of the rectum along with peripheral adhesions.

Materials and Methods

The present paper deals with technique of correction of congenital anomaly of rectovaginal fistula with atresia ani et recti in a calf. Usual clinical signs include passage of faeces through the vulva, vulvar irritation, tenesmus, cystitis, and megacolon. Recto-vaginal defects may cause pneumovagina which results from stretched, ruptured, deformed and horizontal vulva and may introduce fecal material, urine and air into the vagina (particularly in older cows) leading to vaginitis, cervicitis, endometritis, failure of conception and repeat breeding. A three day old calf was presented with history of defecating semi-liquid faeces through vaginal opening. The animal was straining with urinary incontinence. Clinical examination revealed absence of anal opening and recto-vaginal fistula resulting in passage of meconium through the vulva. The animal appeared dull and depressed.

Treatment

Epidural anaesthesia was given with 2% lignocaine HCl @ 2 mg/ kg body weight. After achieving the desensitization at the site, an artificial opening of anus was made to simulate the normal anatomical/ topographical opening. Through this opening, rectum was searched but could not be traced. Instead only a tight fibrous band (adhesion) with the vagina could be felt. Unless the fistula is deeply seated, it can be exposed satisfactorily by a dorsal commissure episiotomy which is extended cranially under the anal sphincter and rectal floor beyond the fistula. In present case, rectovaginal fistula was positioned too cranially along with peripheral adhesions and laparotomy was chosen to approach rectal end. Laparotomy was done on left flank and the caudal alimentary tract was identified. Rectum was located and a sterile cotton bandage encirclage was tied circumferentially around the rectum. A long curved artery forceps was then used to clamp the ends of the gauge bandage and was gently attempted to pull the rectum towards the anal opening (Fig.1). It was pulled with consistent force and maximum care, avoiding any damage to the rectum. The rectum was fixed to artificial opening of anus

by placing horizontal mattress sutures using silk no. 1. The rectovaginal fistula was repaired by placing interrupted sutures in roof of vagina using absorbable suture material such as polyglactin 910. Post-operatively magnesium sulphate plus castor oil enema was given for 5 days. Further, inj. amoxicillin-cloxacillin @ 20 mg/kg intramuscularly for 5 days and meloxicam @ 0.5 mg/kg for 3 days were administered. Fly repellent and antiseptic ointment for local application for ten days were advised.

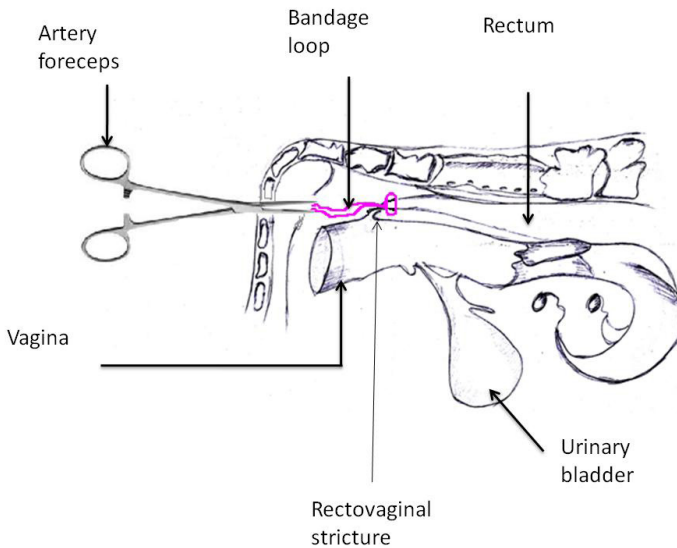


Figure 1. Clamped ends of gauge bandage in the jaw of artery forceps to locate the rectum.

Results and Discussions

Congenital rectovaginal fistula is considered an embryologic failure of the urorectal septum to separate the cloaca into urethrovesical and rectal segments. Radiographs are considered important to determine the position of the fistula and to differentiate the 4 types of congenital atresia ani. The present case falls under the category of type III, where the rectum ends as a blind pouch which is located farther craniad.

Atresia ani may develop when the dorsal part of the cloacal plate fails to form, and in females this is occasionally accompanied by a recto vaginal fistula. The

resulting fistula connects the dorsal wall of the vagina with the ventral portion of the terminal rectum and provides a path for defecation.

Sutures were absorbed spontaneously in due course of time and adhesions were formed and rectum was fixed in normal anatomical position. The faeces were coming out through artificial opening and no faecal contents were coming out through vaginal opening. It was reported to be having normal feeding, urination and defecation. The animal also looked alert after recovery. This suggested that when atresia ani et recti was corrected, the rectovaginal fistula could be repaired using standard procedure. The technique by which rectum was brought in normal anatomical position may prove beneficial in clinical cases in which rectal end is located more cranially and in fixed position. The use of sterile gauge bandage prevented tears on the rectal wall. At the same time it also provided sufficient strength to pull the organ into place.

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