Bio Vet Innovator Magazine
(Fueling The Future of Science…)
Volume 3 (Issue 1) JANUARY 2026
OPEN ACCESS
Case Study

A Rare Case of a Complex of Multiple Congenital Anomalies with Urethral Agenesis and Atresia Ani in Goat Kid

Dipak Madikuntawar[1], Giridhar Vaidya[1], Suresh. Nipane[1*]
[1]*Veterinary Officer*
District Veterinary Polyclinic, Bhandara, M.S., INDIA
***Corresponding Author:** dr_sureshvet12@rediffmail.com
DOI: https://doi.org/10.5281/zenodo.18431558

Received: January 23, 2026
Published: January 28, 2026

Abstract:

Agenesis of the urethra and anus was an extremely rare congenital anomaly. Goat kid was alive after successful surgical intervention of urethral agenesis with atresia ani.

Keywords: Agenesis, anus, goat kid, urethra.

Introduction:

Urethral agenesis is an absence, a partial absence or an occlusion of the urethra is affected. In this article a total absence of the urethra is considered. Urethral agenesis (or urethral atresia) refers to a situation where there is a congenital absence of the urethra. It can be a cause of fetal obstructive uropathy. Atresia ani also known as imperforate anus is an inherited embryological anomaly mainly due to the failure of the anal membrane to cessation or sometimes thin membrane covering normal anal orifice. This defect may progress when a dorsal part of the cloacal plate fails to form and in female it is accompanied by agenesis of genitalia (Chaudhary *et al.,* 2016). Inheritance was reported in swine and lambs and possible in calves but not published (Samit *et.al.,* 2009). Atresia ani (imperforate anus) is the failure of the anal membranes to break down. Female goat kid can be identified by their depression, anorexia, colic, marked abdominal distension and lack of faeces, faeces being replaced by thick white mucus reported by Radostitis *et al*., 2000. The present paper reports an unusual case of atresia ani with scrotal anomalies in a non-descript kid. Atresia ani with atresia urethra rarely reported in goat. Urethral agenesis means absence of normal opening of urethra.

Case history and observations:

An animal owner from village Parsodi, Dist. Bhandara registered a visit at the Veterinary Polyclinic Hospital, Bhandara with his newly day born female kid. On clinical examination, the kid was kept in standing position and clinical signs included absence of anal & urethral opening, dysuria, stranguria, tenesmus, bulging of the anal area and urethral opening, unable to pass faeces & urine and manifestations of abdominal discomfort along with a distended abdomen.

Fig. 1: Urethral agenesis and Atresia ani in female kid

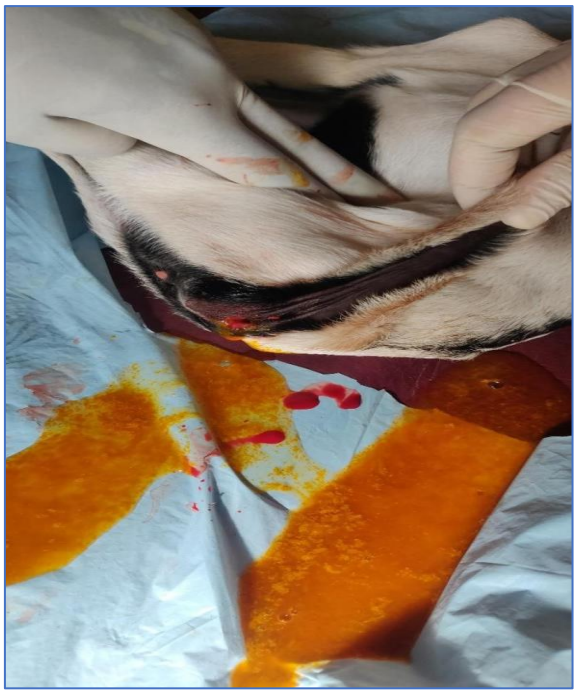

Fig. 2: Evacuation of the bloody dark stained liquid immediately after cross shaped incision

Fig. 3–4 Postoperative aspects of Urethral Atresia and Atresia Ani in female kid.

Other signs included abdominal distention, straining, depression and weakness. Abdominal palpation on the ventral aspect revealed distended bladder. The kid's temperature, heart rate and respiration rate were found to be within normal range. Finally, from the case history and clinical examination, it was confirmed that the kid had atresia ani with urethral atresia. With the consent of owner, decided to operate and treated the patient immediately.

Surgical Intervention:

Firstly, the site around the supposedly anal opening was cleaned thoroughly and shaved. After scrubbing the site of interest was prepared. 2% lignocaine hydrochloride was infiltrated around the area to be incised for achieving the local analgesia. Finally, the site was scrubbed and painted with povidone-iodine.

For surgical correction, a circular incision of 1 to 2 cm diameter was made through the skin and subcutaneous tissue at the site where the anus would normally be located. After careful blunt dissection, the rectal pouch was gently pulled caudally with a pair of tissue forceps. The rectum was sutured to the subcutaneous tissue with four to six interrupted sutures, the rectal pouch was incised and the rectal mucosa was sutured to the skin. Fecal incontinence is a frequent complication of surgical correction of atresia ani (et recti) because of absence of anal sphincter muscles. The kid passed bloody dark stained liquid faeces on applying slight pressure on the abdomen. Rectovaginal fistula, if present should be repaired before suturing the rectum to the perineal skin. Usually, no special after-care of the wound is necessary.

Following the correction of atresia Ani, the surgical correction of urethral atresia was performed. The urethra and its surrounding tissues were able to be slightly felt in the back end 2- 3 inches below the newly formed anal opening and just behind the rear legs. The site was cleaned thoroughly and shaved. After scrubbing the site of interest was prepared. 2% lignocaine hydrochloride was infiltrated around the area for achieving the local analgesia. Finally, the site was scrubbed and painted with povidone-iodine. As the urethra were not completely developed congenitally, a new opening was made to allow the kid to urinate normally. An incision was made through the skin and into the urethra and the new urethral opening was sewn directly to the skin with simple interrupted sutures. The kid was able to urinate immediately down and backwards instead of forwards by applying slight pressure on the bladder. Post operatively, the kid was administered with Inj. Meloxicam @ 0.2 mg/kg bodyweight for 3 days and Inj. Cefotaxime @500 mg i/m daily for 5 days.

The kid in the present case improved gradually following surgical treatment and showed ability to defecate and urinate normally.

Conclusion:

Urethral agenesis is a very rare congenital condition that is associated with atresia ani anomalies where the only choice of treatment was surgical reconstruction of anal and urethral orifice to relieve abdominal discomfort to the goat kid which was successfully corrected without any post-operative complication.

Acknowledgments:

Author thankful to Assistant Commissioner of Animal Husbandry of Veterinary Polyclinic,

Bhandara, Maharashtra, India for permitting to use the information for this publication.

References:

Chaudhary, G. R., Bhat, A. R., Vikram, R., Kharayat, N. S., Suthar, A. N., Kumar, A., Katiyar, R., Das, G. K., Narayanan, K., & Pawde, A. M. (2016). Congenital atresia of vulva and anus in a lamb. *Journal of Livestock Science*,7: 89-91.

Radostitis, O. M., Gay, C. C., Blood, D. C., & Hinchcliff, K. W. (2000). Veterinary Medicine: A textbook of the diseases of cattle, sheep, pigs, goats and horses, 9th edn, Saunders, Philadelphia, pp. 1729.

Samit, K., Nandi, S., Halder and Hoque, M. (2009). A textbook on Veterinary Surgery and Radiology.