Surgical Affections in Assam Hill Goat - A Retrospective Study

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Abstract

A retrospective study of surgical affections in Assam Hill goat was undertaken. About 1,672 cases were registered during the study out of which major affections which are of prime concern were fracture, urinary obstruction, foreign body ingestion, coenurosis, ventral hernia, urinary bladder rupture and urethral diverticulum as their treatment were challenging.

Keywords: Assam hill goat; surgical affection

Introduction

The caprine population in North East India was approximately 3.51 percent of the total India population (Feroze *et al.,* 2010). Assam Hill goat is the only breed found in Assam and its adjoining areas. With the increase in population, their numbers of diseases are also increasing day by day which requires a proper documentation. The present study reveals the common surgical affections attended during the span of two years.

Materials and Method

A retrospective study of surgical affections in Assam Hill goat for two years was done from 1st May' 2015 to 30th April' 2017. The cases presented were recorded for two years and suitable treatment was rendered to manage the affections in goats. Incidence study was carried out irrespective of age, sex regarding the common surgical affections of Assam hill goat in north east Assam.

Results and Discussion

About 1,672 cases were registered during the study period out of which 1,182 were routine cases of castration,126 cases of abscess, 114 cases of cysts, 88 cases of fracture due to accidents, 36 cases of hoof elongation, 34 cases of maggot wounds, 22 cases of urinary obstruction, 14 cases of dystocia requiring caesarian section, 10 cases of foreign body ingestion, 9 cases of gid (coenurosis), 8 of ventral hernia, 8 cases of corneal opacity, 7 of chronic mastitis, 4 cases of urinary bladder rupture, 5 cases of atresia ani, 4 cases of horn injuries and 1 case of urethral diverticulum (Table1).

Animals presented for routine castration was carried out under Lignocaine Hcl instillation at the neck of the scrotum with baby burdizzo castrator meant for kids at the age of 3-4 months followed by

Table -1: Incidence of surgical affections in Assam hill goat

Surgical affections	Numbers	Incidence (%)
Routine castration	1182	70.69
Abscess	126	7.53
Cysts	114	6.81
Fracture	88	5.26
Hoof elongation	34	2.03
Maggot wounds	36	2.15
Urine blockage	16	0.95
Cesarean section	14	0.83
Foreign body	10	0.59
GID	9	0.53
Ventral hernia	8	0.47
Corneal opacity	8	0.47
Mastitis	7	0.41
Urolitiasis	6	0.35
Urinary rupture	4	0.23
Atresia ani	5	0.29
Horn injury	4	0.23
Urethral diverticulum	1	0.05

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Fig. 1: Surgical excision of gid

Fig. 2: Maggoted wound in umblicus

Fig. 3: Surgically corrected Atresia ani

Fig. 4: Chronic mastitis with tumorous growth

Fig. 5: Cesarean section

Fig: 6: Abcess in base of neck

Fig. 7: Foreign body in oropharynx

administration of Melonex[a] (Meloxicam) injection @ 2ml/33kg b. wt intramuscularly at stat and routine deworming with Fentas plus[a] (Fenbendazole and Praziquantel) 150mg @ 1tab /10 kg b. wt. orally and adults were managed with open castration under local anaesthesia with standard post-operative care with analgesics and antibiotics. Abscesses (Fig. 6) were mostly managed with surgical drainage and subsequent Tincture Iodine paint with post-operative care with Exoheal spray[a] (herbal) topically. Subcutaneous cysts were commonly reported in all parts of the body, mostly single, occasionally multiple in numbers and were surgically excised with scolex intact under standard protocols. Cases of accidents were mostly attributed to automobile injuries leading to fracture of tibia and metatarsal bones which were immobilized with external Thomas splints as invasive procedures were not very cost effective. Comminuted fractures involving one limb was subjected to amputation and open fractures with stainless steel wire and were also supported with antibiotics and supportive therapy (Olcay *et al.,* 1999). To provide sufficient stability and to avoid angulation, additional modified Thomas splint was used along with wire. Elongated hoofs were reported due to bad managerial conditions with smooth wooden flooring. They were trimmed with hoof cutters. Maggoted wounds (Fig. 3) were best treated with physical removal of maggots along and subcutaneous injection of Ivermectin (Neomec[a] @ 1ml/10kg b. wt.).

Cases of urine retention were alarmingly reported mostly after castration by untrained personnel kids, were below 3 months of age and the problem were life threatening in case of complete stenosis of urethra. Three of them were managed with tube cystotomy (Rakestraw *et al.,* 1995) but were not properly reported and others were disposed off. Several authors have reported castration at an early age, as a risk factor for development of urethral

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obstruction (Bailey *et al.,* 1975). Cesarean sections (Fig. 5) were carried out and up to quadruplets were delivered in this variety of goats. The surgeries were performed with local anesthesia following standard procedures (Brounts, 2004).

Foreign body ingestions were reported with barbed wire used in fencing or nails which lodged in the oro-pharynx (Fig. 7) and were usually taken out with alligator forceps. Gid incidences were also reported in doe's prepartum or post partum (Fig.1) and were successfully excised (Amin *et al.,* 2013). Ventral hernias were reported in goats and were surgically corrected with herniorraphy using black braided silk (1-0) with standard post-operative procedures. Among the various eye affections 'corneal opacity' was very common in goats which might have been due to injuries while grazing which are successfully corrected with antibiotic and steroid therapy (Intamox[a] 250mg mixed with 1ml of Prednisolone/ Inerol[a] and injected 0.5ml, sub-conjuctivally) on weekly intervals for upto two-three occasions. Mastitis was reported in the chronic form (Fig.4) where the udder was completely damaged and mastectomy was performed as per the standard protocol under mild sedation and local anaesthesia.

The urethral process is the most common site of obstruction in sheep and goats; in those whose urethral process has been amputated, the distal aspect of sigmoid flexure is the usual site for blockage (Feroze *et al*., 2010). Urolithiasis was also reported in kids and were managed successfully with catherization and trimming the tip of urethral process to remove stones when attempts to milk out the same succeeds. Long standing cases led up to rupture of urinary bladder and subsequent death. Urinary bladder rupture due to automobile accidents were presented late lids to poor prognosis. Although, few cases were managed with bladder marsupialization (May *et al.,*1998). Congenital diseases in the form of atresia ani (Fig. 3) were also reported in kids and were successfully corrected with standard surgical procedures. Horn injuries were presented due to constant rubbing against hard objects as a result of irritation due to ecto-parasites which were managed bt standard procedures.

A case of urethral diverticulum was reported in a kid which was initially thought to be cyst in penile area but on catheterization it was confirmed to be a diverticulum. There was a major portion of urethra involved so we had to excise off the entire diverticulum and left over urethra was directly fixed with skin (diverticulectomy)/ permanent urethrostomy (Bokhar, 2013) and catheterized for three days along with other supportive therapies. Although the healing initially appeared good but the owner didn't report later for follow ups. However, depending on each case presentation and the presence of adhesions between penis and prepuce, amputation of narrowed urethral process may not always facilitate urethral catheterization.

References

Amin, M.N., Hashim, M.A., Hossain, M.A., Al-Sultan I. I. **(2013)**. Coenurus cerebralis infection (Gid disease) in Black Bengal goats; Effects on certain blood values after surgical treatment. *J Adv. Biomed. Pathobiol. Res.* **3**: 1-7.

Bokhar, I.S.G. **(2013)**. Hypospadias and urethral diverticulum in two goat kids - A case report. *The J. Anim. Plant Sci.* **23**: 675-77.

Brounts, S.H, Hawkins, J.F, Baird, A.N., Glickman, L.T. **(2004).** Outcome and subsequent fertility of sheep and goats undergoing cesarean section because of dystocia: 110 cases (1981–2001). *JAVMA* **224**: 275-79.

Bailey, C.B. **(1975)**. Siliceous urinary calculi in bulls, steers and partial castrates. *Can J Anim Sci* **55**:187-91.

Feroze, S.M., Raju, V.T., Singh, R. and Tripathi, A.K. **(2010)**. Status of livestock sector - A micro study of North Eastern India. *Ind. J. Hill Farm.* **23**: 43-51.

May, K.A., Moll, H.D., Wallace, L.M. *et al.* **(1998)**. Urinary bladder marsupialization for treatment of obstructive urolithiasis in male goats. *Vet Surg* **27**: 583-88.

Olcay, B., Bilgili, H., Kürüm, B. **(1999)**. Treatment of communitivediaphyseal metacarpal fracture in a calf using the Ilizarov circular external fixation system. *Israel J Vet Med.* **54:** 122-27.

Rakestraw, P.C., Fubini, S.L., Gilbert, R.O. *et al.* **(1995).** Tube cystostomy for treatment of urolithiasis in small ruminants. *Vet. Surg.* **24**: 498-505.

Van Metre, D.C. and Smith, B.P. **(1995)**. Surgical Treatment of Urolithiasis in Food Animals. In: *Proceedings, Fall Symposium on Advances in Veterinary Clinical Medicine,* University of California at Irvine.