

*Clinical Article*

## **SURGICAL MANAGEMENT OF EXTENSIVE AURAL HAEMATOMA IN A JAMUNAPARI GOAT**

**Rukmani Dewangan\*, Raju Sharda and M.O. Kalim**

Department of Veterinary Surgery and Radiology

College of Veterinary Science & A.H., Anjora, Durg (C.G.)

E-mail: dewanganrukmani@gmail.com (\* *Corresponding Author*)

**Abstract:** A two years old Jamunpari goat was brought to the Department of Veterinary Surgery and Radiology with complaint of swollen right ear flap. On physical examination soft fluctuating swelling was noticed on medial side of ear. It was diagnosed as aural haematoma and decided for surgical drainage. The animal was anaesthetized suitably and by incision of 3 cm long over haematoma was given. After draining the serosanguineous fluid, deposits were curetted and cavity was thoroughly irrigated with betadine solution. Series of through and through horizontal interrupted mattress suture were placed parallel to the incision. The pinna was dressed with betadine along with protective pressure bandage and ear was placed in dorsum of neck. Postoperatively, a course of antibiotic (Inj. Intacef 500 mg) for 5 days and Inj. Meloxicam @ 0.5 mg/kg body weight for 3 days were administered. Sutures were removed after 15 days. The animal showed uneventful recovery.

**Keywords:** Aural Haematoma, Goat, Ear.

### **Introduction**

Aural haematoma is an accumulation of blood in between skin and cartilage of the ear, it usually appear as fluid filled swelling on the concave surface of Pinna. In animals ear infection is one of the common diseases noticed. Aural haematoma in most cases occurs due to constant shaking and rubbing of ear due to otitis, ectoparasitism, otorrhoea, foreign bodies, hypersensitivity and allergic dermatitis which leads to rupture of the pinnal blood vessel resulting in bleeding within the cartilage layers of the auricle and hematoma formation occurs (Ahiwar *et al.*, 2007). It is characterised by a fluctuating mass between the concave and convex sides of the auricle. Surgical treatment is necessary in most cases because without treatment the auricle will shrivel and subsequent ossification of the cartilage will cause continuous irritation. Surgery should be postponed until coagulation has taken place, usually within 3 days. The purpose of surgery is to remove the blood clot and to press the layers of the auricle together to eliminate dead space and recurrence of the haematoma. Aural haematoma in ruminants are uncommon. Sporadic cases of aural haematoma have been

recorded in buffalo calves and goats (Tyagi and Singh, 2006). The present paper deals with a successful surgical management of extensive aural hematoma in a Jamunapari goat.

### **Case History**

A two years old Jamunapari goat was brought to the Department of Veterinary Surgery and Radiology with complaint of swollen right ear flap (Figure 1). History revealed that goat had encountered an ear injury of thorny bush and with subsequent scratching animal had developed swelling. On physical examination soft fluctuating swelling was noticed on medial side of ear having doughy consistency. It was diagnosed as aural haematoma and decided for surgical drainage.

### **Treatment**

The goat was prepared aseptically for surgery and anaesthetized with Xylazine Hydrochloride @ 0.05 mg/kg and Ketamine Hydrochloride 10 mg/kg body weight intramuscularly. Then animal was placed in lateral recumbency with affected ear upper side. The haematoma was opened on the concave side on the most distal aspect of the haematoma with a stab incision through both skin and cartilage using a Bard-Parker scalpel handle with No. 11 blade until the serosanguineous fluid was drained completely (figure 2). Then 3 cm long incision was made and with gentle use of a curette, fibroangioblastic tissue was removed from the inner surface of the cartilage without causing additional bleeding. The blood clots and fibrin deposits on the cartilage were curetted with the help of curette. The cavity was thoroughly irrigated with betadine solution. About 1-2 mm thick skin flap was removed from the edges of the incision to create a gap between the edges of skin. Series of through and through horizontal interrupted mattress sutures were applied through entire thickness of ear flap on both side of the incision using silk 2/0 and were placed parallel to the incision with knots on the convex surface of the ear using nylon no.2. The incised cutaneous edges were left unopposed for continued drainage (Figure 3). The sutures were placed over the entire surface of the haematoma and at least 5-7 mm wide, to avoid excessive tension on the underlying tissue, and not more than 5-7 mm apart. The sutures were tied on the convex side, where the skin and subcutis are thicker and thus more resistant to the pressure of the knots. Then pinna was totally dressed with betadine ointment. A tight protective pressure and absorbent bandage was applied over the ear and the ear was placed in dorsum of neck to prevent slipping of the bandage. Dextrose saline 5% (500 ml) was administered continuously into the jugular vein during operation. Postoperatively, a course of antibiotic (Inj. Intacef 500 mg) for 5 days and Inj. Meloxicam @ 0.5 mg/kg body weight for 3 days were administered. Bandage was

changed every three days after antiseptic wound dressing of the operative site with betadine solution and ointment. It was advised to keep the animal in a clean house and not allowed to rub its head. Sutures were removed after 15 days. The animal showed uneventful recovery.

### **Discussion**

Aural hematoma is a common condition in dogs and this condition is mostly reported in pendulous ear breeds but rarely observed in ruminants (Tyagi and Singh, 2006). In the present case it was found in a Jamunapari goat. Aural haematomas occur when blood vessels in the pinna rupture secondary to trauma or excessive head shaking. Blood fills the space between the skin and the cartilage, causing pain and potential deformity of the ear. The predisposing factor to haematoma include trauma to pinna, a history of violent head shaking and acute or chronic otitis, external ear mites, fly bites and dermatological diseases. In addition a foreign body parasites and neoplastic growth may become a source of irritant which causes ear scratching and make the animal shake its head vigorously to get rid of itch. Thus, blood vessels in earflap may rupture and bleed into the tissue of the pinna forming a pocket, but continuous head shaking will cause the pocket to enlarge until it became very noticeable. Psoroptes spp. mite infestation in sheep (Bates, 1996) and ear tagging in goats (Clayton, 2009) may lead to development of aural haematoma making the ear distorted and painful. Trauma with subsequent haematoma formation was observed to be the etiological factor in the present cases. Further additional head shaking and scratching resulted in separation of cartilage and extensive haemorrhage. Incisional technique was adopted in the present case for surgical management of aural haematoma. Application of protective pressure bandage with ear placed on dorsum of neck to prevent slipping of the bandage proved beneficial for treatment.

### **Conclusion**

Successful surgical management of extensive aural haematoma in Jamunapari goat was reported.

### **References**

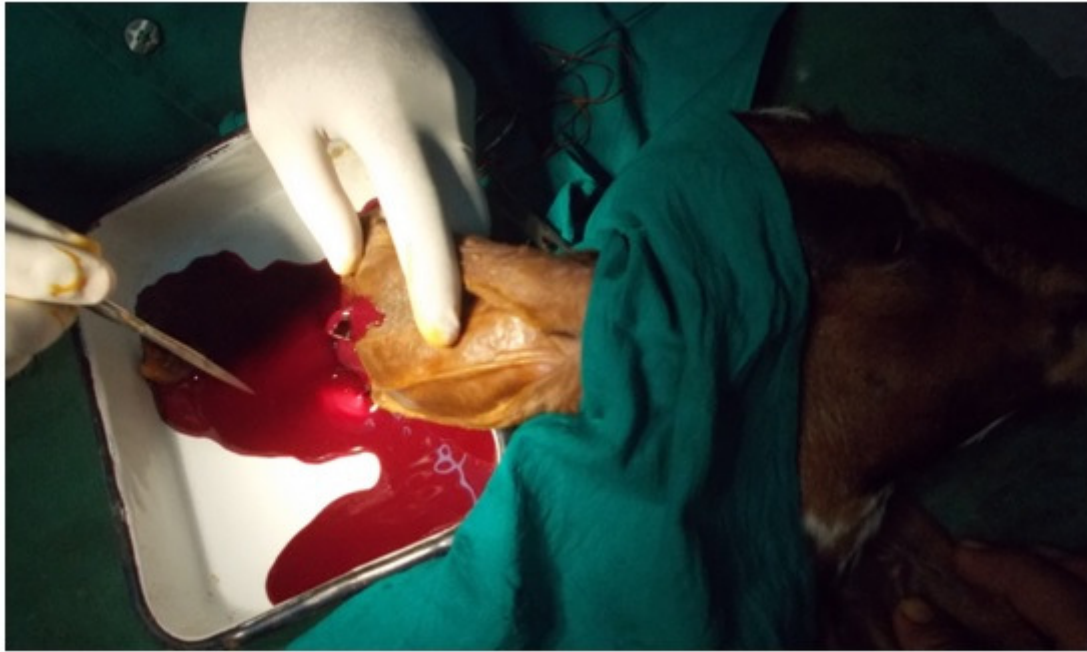
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**Figure 1.** Right ear haematoma in 2 year old jamunapari Goat



**Figure 2.** Drainage of aural haematoma



**Figure 3.** Post-operative positioning of mattress suture pattern