

Success Story

Diagnosis and Surgical Management of Gid in Nondescript Goat

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Coenurosis, also known as coenurus, gid or sturdy, is a parasitic infection that develops in the intermediate hosts of some tapeworm species (*Taenia multiceps*, *T. brauni*, or *T. glomerata*). Coenurus cerebralisis the larval form of *Taenia multiceps* which is seen in the small intestines of carnivores. It is caused by the coenurus, the larval stage of these tapeworms. Infection occurs as a result of the oral intake of eggs spreading via fecal dumps of those animals by intermediate hosts. The disease occurs mainly in sheep, goat and other ungulates, but it may occur in humans by accidental ingestion of tapeworm eggs. Adult worms of these species develop in the small intestine of the definitive hosts (dogs, foxes and other canids), causing a disease from the group of taeniasis. Total 10 nondescript breed of goat were presented to the clinic of Bihar Veterinary College, Patna, Bihar (India) with the history of anorexia, bleating, ataxia, seizure, head pressing against the wall, circling movements, at times keeping the head upwards and walking in circle. Softening of skull bone at occipital region was seen. It was also diagnosed by the X-ray as radiolucent density above the occipital bone and a mild rarefaction was distinctly visible. Prior to reporting to the present clinic, it was treated with local veterinarian but no improvement was recorded. The case was tentatively diagnosed as of coenurosis and it was decided to remove the cysts surgically from subdural space after trephening the occipital bone. Goat was cast in lateral recumbency and site was prepared aseptically for surgical intervention. The exact site of cyst was the area between two horns. The goat was tranquilized with xylazine @ 0.1mg/kg body weight and anesthesia were obtained by local infiltration of 2% lignocaine hydrochloride solution at the central point of occipital region. A linear skin incision was made on the skin measuring 4-6 cm through fascia and periosteum at left side of occipital region. The bone and meninges were incised by a nick with scalpel blade and enlarged with scissors.



Few gentle jerks were given to the head by holding the horns to enable the protrusion of cyst from incision. However, it was difficult to visualize the cyst for a while but by constant physical maneuvering with finger and blunt forceps, we were able to retrieve the cyst by grasping with mosquito artery forceps and was gently pulled out from the brain as water balloon and the wound was closed with non-absorbable sutures. Postoperatively, the goats were administered antibiotics (Ceftriaxone @ 25 mg/kg) and non-steroidal anti-inflammatory agents (Meloxicam 0.3 mg/kg) for 5 and 3 days, respectively. Besides, the fluid therapy (Ringer's lactate) was done to maintain the electrolyte and hydration status with provision of energy as goat was anorectic for five days. The goat recovered uneventfully. The skin sutures were removed on 12th post-operative day.

The outbreaks of Coenurosis in local breed of goats is documented but the cure rate was very low due to lack of knowledge of surgical procedure to remove the cyst form brain. The higher incidence of Gid was reported in sheep and goats than the other species. The field veterinarian and students were trained for performing this surgical procedure and being done at the field level. Due to adoption of this technique by the field veterinarian life of goat are being saved even in the rural areas of the state.



Fig.1: Oncosphere is visible after incision



Fig. 2: Cyst is being pulled manually



Fig. 3: Cyst with Protoscolices



Fig. 4: Gap in cranium after cyst evacuation



Fig. 5: Skin incision closed with interrupted suture

