

Short communication

## Ultrasonographic diagnosis and surgical removal of unusual palpebral conjunctival coenurus cyst in a kíd

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### *abstract*

a seven-month-old female kíd was presented with bulging of right upper eyelid. Through clinical examination was performed and Trans-palpebral ultrasound examination revealed cyst. The circumscribed cyst was removed following a stab incision on mid of palpebral conjunctiva under local analgesia. Microscopic examination confirmed the coenurus cyst. The kíd made an uneventful recovery.

**Keywords:** coenurus cyst, kíd, palpebral conjunctiva, ultrasonography

### **Introduction**

Sheep and goat are frequently affected with Coenurosis disease. In addition to its zoonotic impact, high economic losses in farms are also a noticeable effect of coenurosis. *Coenurus cerebralis* is a principal cause for nervous manifestations due to manifestation in the Central nervous system (Desouky et al., 2011). Further, it is also noted in wild and domestic canids mostly in the larval form of the *Taenia multiceps* gaigeri that causes non-cerebral coenurosis (Sharma and Chauhan 2006). The most common site/location of the worm reported are the shoulder, gluteal, kidney, neck muscle, heart, genital system, rectum and urinary bladder (Varma and Malviya 1989), retro-bulbar eye (Sharma et al., 2017), lower eyelid (Raikurg and Reddy 2009), peri-orbital of domestic goats (Aher et al., 2018). Ultrasonographical diagnosis and surgical management has been described by Biswas (2013). Unusual palpebral conjunctival coenurus cyst's surgical management in a kíd is reported here.

### **Materials and methods**

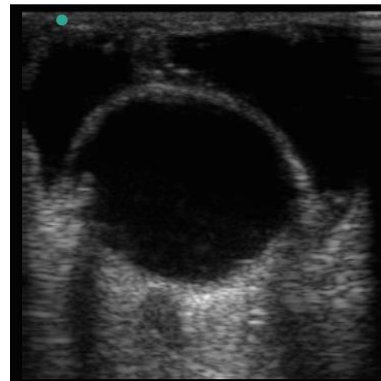
a seven months old surtí male kíd was presented at the veterínary clínical complex, deesa, SDaU with the hístory of unílateral bulging of ríght upper eyelíd sínce one month, Blepherítis and congestión of conjunctíva membrane was noticed (Fíg. 1).

Clínical examinátion of the kíd revealed all the physíological body parameter wíthín normal range víz., rectal temperature (101.5F), heart rate (86 per mínute) and respíratory rate (33per mínute) and conjunctíval mucus membrane was pínk. The protrusión of swelling was from perorbítum (below upper eyelíd) over cornea of ríght eye ball. Palpatión revealed a soft, fluctuatíng, non-paínful cyst. Thís swelling was híndrance ín vísión due to the protrusión but the vísión was not ímparted. On needle paracentesis a clear fluíd was observed.

Ultra-sonographíc examinátion was performed after restráíníng of kíd, usíng a 6–8 MHz convex transducer. Usg result shows the presence of a círcumscribed anechoíc area due to watery consistency ín the retro bulbar muscle (Fíg. 2).



(Fíg.1)



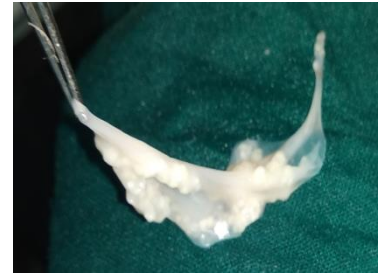
(Fíg.2)

Clínical examinátion, ultrasonographíc examinátion and needle paracentesis confirmed the cyst. The cyst was surgícally removed by a stab íncísión under local ínfíltrátion of 2% lígnocaíne hydrochloríde on míd part of swelling (Fíg.3). The cyst was successfully removed íntact along wíth íts membrane. Colorless transparent fluíd was drained out after removal of cyst. The cavity was flushed wíth normal salíne. Macroscópíc ínvéstígatión revealed proscolíces ín clusters attached to the ínternal surface of íts wall (Fíg.4).

Post-surgícal management carríed out by Drop. Gentamícín 0.3% TÍD, for fíve days, Ínj. Meloxícam @ 0.2mg/kg, ÍM for fíve days, Tab. Fentas 150mg, orally and ít repeated after 21 days.



(Fíg.3)



(Fíg.4)

### Results and discussion

The animal resumed normal vision (Fíg.6). The cyst measured 2.3 cm × 2.8 cm and contained enormous quantity of fluid with many invigilated proscolices (Fíg.4). Microscopic investigation of single proscolix revealed the typical taenid hooks that characteristically conforms coenurus (Fíg. 5) located extra cranial found in the intermediate stage of *T. multiceps gaígeri* (Madhuet *al.*, 2014).

Clinical signs, visual examination, ultrasonography, needle paracentesis and microscopic examination of the cyst confirms the diagnosis of a *Coenurus gaígeri*.

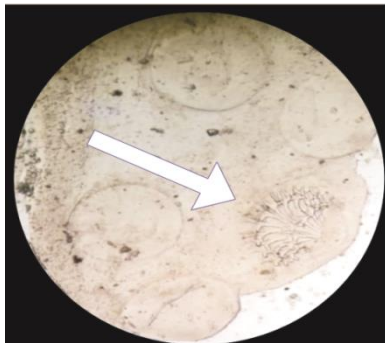
Coenurosis is a mainly affecting sheep and goat which causes significant economic losses in their production. Coenurosis is associated with *Taenia multiceps* (metacestode stage). Gid or sturdy is the cerebral form of coenurosis. The cystic larvae develop in the brain and spinal cord of the parasitized host and affect the central nervous system (Aielo and Mays 1998; Sharma and Chauhan 2006). Contrary to above, metacestode occasionally seen at aberrant sites in goats, with an alternate name (*C. gaígeri*), have been documented (Sharma et al. 1995; Kumar et al. 2003; Madhu et al. 2014).

The lesions often persist throughout the life span of the host (Sharma and Chauhan 2006) as a majority of coenuric affected goats shows the cysts anchor, develop, mature and cause asymptomatic focal lesions in extra cranial aberrant sites. Such animals are potentially important source of the disease in growing animals. Goats, being intermediate host usually get the infection from the dog's excreta (Ozkan et al. 2011). Entry of street dogs to goat farms should be prevented for control. adult goats are slaughtered for human consumption that made humans dead-end intermediate hosts. The ingested eggs release oncospheres in the host intestine that penetrate the intestinal wall and migrate toward target organs through the blood stream. (Abera *et al.*, 2016). The dogs in and around the animal farms should be treated with anthelmintics for

prevention. Prophylactic anthelmintic therapy can be given to the small ruminants but the economic feasibility must also be considered. albendazole or combinations of anthelmintics (Fenbendazole and Praziquantel) were useful in coenurosis (Ghazaei, 2005).

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