

Ultrasonographic Diagnosis of a Subcutaneous Coenurus Cyst in a Goat

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Abstract

A one year old non-descript female goat presented with the history of anorexia and a swelling in right flank. On physical examination, it was found to be a mass and suspected to be located intra abdominally. On ultrasonographic examination it revealed a fluid filled fluctuating anechoic mass, but was located in subcutaneous space. Ultrasound guided aspiration was done and the parasitological examination of aspirated fluid, revealed it to have *Coenurus gaigeri*, the intermediate stage of *T. Multiceps gaigeri*. Ultrasonographic assessment helped in differentiation of the lesion and other internal organs from the cyst cavity and helped in planning the intervention strategy.

Key words : Goat - *Coenurus* cyst - Ultrasonography

Lack of goat health awareness and facilities at rural areas keeps the goat keepers, out of access to regular animal health programmes. In such a scenario, an even preventable disease becomes major complications. The current case study documents one such entity – *Coenurus* cyst. While the goat was presented for general veterinary care, an intra abdominal mass was suspected. But its ultrasonographic assesment revealed it to be a coenurus cyst.

Case History and Observations

A one year old non-descript female goat was presented to Large Animal Medicine Referral Clinic, Veterinary College and Research Institute, Orathanadu, with a history of anorexia, intermittent nodding of head and a swelling in right flank. No history of deworming and

vaccinations. On clinical examination, vital signs were normal except for pale conjunctival mucosa. A fluctuating palpable mass was seen on the right flank. Other systemic examinations were found to be unremarkable. On suspicion for intra abdominal mass, ultrasonographic examination (Esoate Mylab 1.0) was performed in standing posture without sedation using a 2.5 to 5 MHz curvy linear probe (Fig.1). It revealed an anechoic fluid filled cavity, cranio ventral to the right kidney (Fig.2).

It was circumscribed anechoic cyst and was aspirated by ultrasound guidance. The aspirated fluid was transparent and numerous small sized flake like content. It was identified as *Coenurus gaigeri* by direct microscopic examination.



Fig.1. Trans abdominal ultrasonography guided aspiration of cyst behind the last rib.

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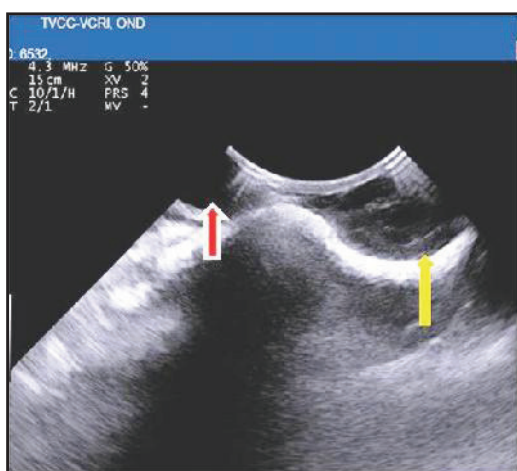


Fig. 2. Trans abdominal ultrasonography showing anechoic fluid filled cavity (red arrow) in the right flank and right kidney (yellow arrow).



Fig. 3. Microscopic view of coenurus cyst (*Coenurus gaigeri*) showing a single scolex with hooks.

Treatment and Discussion

Deworming being the fundamental health care practice for all animal productivity is still neglected in certain rural areas. Marginalized communities are not accessing such basic animal health care practices. It ends up in preventable diseases easily developing into fatal complications. Current case study of deploying ultrasound to diagnose a covert coenurus cyst in a unsuspected goat is a testimony to that. Ultrasonography guided aspiration revealed a transparent fluid which on microscopy was found to contain *Coenurus gaigeri*, which is an intermediate stage of *T. Multiceps gaigeri*. Microscopic view of single scolex showed typical taenid hooks (Fig.3). Ramadan *et al.* (1973) described the clinico-pathological effect of a massive natural infection of *C. gaigeri* in a Sudanese goat affecting the intermuscular and subcutaneous connective tissues. *C. gaigeri* was reportedly documented in regions of thigh, neck muscle, diaphragm, heart, kidney, uterus, rectum and urinary bladder of domestic goats (Varma and Malviya 1989), and in muscles of thighs (Jyothimol and Sangaran, 2015) and in inner aspect of thigh and inguinal regions (Madhu *et al.* 2013).

Coenurosis is caused by larval forms of *Taenia multiceps*. The cystic larvae (*C. cerebralis*) especially in sheep develops in the brain or spinal cord and predominantly affects the functioning of central nervous system of

parasitized host, including man (Sharma and Chauhan, 2006). Occasionally aberrant sites are also noticed. The metacestode, especially in goats, called *C. gaigeri* have been documented to have aberrant sites (Sharma *et al.* 1995; El-Sinnary *et al.* 1999; Sharma and Chauhan *loc cit.*). Ghazaei (2005) observed that Albendazole or a combination of anthelmintics (Fenbendazole and Praziquantel) were useful in Coenurosis. In the current case, the animal was treated with suspension of Fenbendazole and Praziquantel @ 7.5mg per kg body weight orally. Review of the case a week later confirmed that the animal was doing well and the mass in right flank region were reduced considerably.

Summary

Presence of any visible swelling in goats shall be examined with caution, as the goat in the current case study was suspected to have subcutaneous mass but its ultrasonography revealed it to be coenurus cyst. Lack of adherence to fundamental prevention practices increase the animal health care challenge and cost, as in this case, where in ultrasound was required to diagnose the complication of an easily preventable disease.

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Idiopathic Septic Pericarditis in a Pregnant Cow

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Abstract

A seven years old pregnant Jersey cross bred cow was brought with a history of anorexia and submandibular and brisket edema since 4 days. Muffled heart sound and bilateral engorgement of jugular vein were noticed. No foreign body could be identified by X-ray and Ferrosocopy. On ultrasonographic (USG) examination, severe pericardial effusions with fibrinous adhesion were noticed around the reticulum. By pericardiocentesis 1 liters of foul smelling purulent brown colour fluid was evacuated. Pericardial fluid cytology revealed degenerative neutrophils with bacteria and *Corynebacterium pyogens* and *Staphylococcus sp* were isolated. Based on USG, pericardiocentesis and culture examination, the present case was confirmed as idiopathic septic pericarditis.

Key words: Septic pericarditis, pericardiocentesis, TRP

Pericarditis is an inflammation of the pericardium with an accumulation of serous or

fibrinous exudates (Reef and Mc Guirk, 2009). Septic pericarditis is more common in cattle as a sequel of traumatic reticuloperitonitis or traumatic pericarditis (Bexiga et al., 2008). Pericarditis is associated with progressive functional disturbances of heart and results in death (Braun, 2009).

Case History and Observations

A seven year old pregnant Jersey cross bred cow was referred to TVCC VCRI Orathanadu with the history of anorexia for the past one week and inter-mandibular and brisket edema since 4 days. This case was treated by field Veterinarian. Clinical examination of animal revealed dull, depressed and edematous swelling of inter-mandible and brisket region and also bilateral engorgement of jugular vein with positive venous stasis were noticed. Physical examination revealed muffled heart sound and suspended rumen activity. On rectal examination semisolid diarrhoeic faeces, doughy rumen and viable fetus about 7-7 1/2 months were observed. Ferrosocopy and X-ray did not showed evidence of any foreign body. Slope and wither

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