



## Surgical Management of Coenurosis (Gid) in a kid

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### INTRODUCTION

Cerebral coenurosis (gid or sturdy) is commonly occurring disease in sheep and goat as compared to the other animals (Oryan *et al.*, 2010 and Stanford University, 2010). It is caused by the larval stage of dog tapeworm mostly *Taeniamplexus* known as *Coenurus cerebralis*. Among the zoonotic diseases coenurus is the one of the important parasitic disease. The adult of these tapeworms live in the intestine of dog and pass the eggs which are then ingested by an intermediate host like sheep, goat, horse and cow. Human are considered as accidental intermediate host. Upon ingestion of eggs, oncospheres escape from eggs, penetrate the gut wall and enters the circulation and form fluid filled bladder like cysts in various tissues called Coenurus. Most commonly the cysts develop in the brain and spinal cord of animals and affect the central nervous system (Moghaddar, 2007). Due to development of the cyst in brain, the animals start showing nervous signs. Rarely they also reach other sites like subcutaneous space and muscular tissues and matures (Ghosh *et al.*, 2005 and Islam *et al.*, 2005). No effective medical treatment is available against the disease and the affected animal leads to death unless the cyst is surgically removed from the brain (Amin *et al.*, 2013).

### MATERIALS AND METHODS

A Six month old female black Bengal kid was brought in the Department of TVCC, BVC, Patna with complain of intermittent bleating and remained in lateral recumbency, earlier the animal showing circling movement. Physical examination revealed soft cranial bone caudal to the left horn which gets cracked while putting pressure with crepitus sound. On the basis of clinical history, clinical signs and clinical examination the kid was diagnosed to be a case of Coenurosis.

### RESULTS AND DISCUSSION

After aseptic preparation of area just caudal to the horn, the animal was sedated with diazepam 0.5mg /kg body weight intravenously and local infiltration of 2% lignocaine analgesia done on incision line (Flecknell, 2009). The skin was incised over the depression and flap elevated. The broken pieces of cranium were gently removed to expose the underlying area, the white transparent cyst filled with fluid started coming out from the exposed cranium and removed successfully (Fig.1). The collected cysts were 2 cm in diameter, white translucent structure, filled with clear watery fluid and many protoscolices on its internal surface. The skin flap was back on apposition and sutured with nylon 1/0 in simple interrupted pattern. The cysts were sent for diagnosis in the Department of parasitology. The results revealed that it was bladder worm stage of dog tapeworm *Coenurus cerebralis*. Post operatively animal was treated with injection Ceftriaxone plus tazobactam @ 25 mg/ kg body wt. (Intacef Tazo) for five days and injection prednisolone @ 1mg/kg body wt. intramuscularly for 3 days then tapered. On 3<sup>rd</sup> day after surgery uneventful recovery was observed and the animal was in standing position (Fig. 2) and skin sutures were removed after seven days. The only recognized treatment for coenurosis is surgical removal of coenurus cyst (Stanford University, 2010). The rapid clinical recovery after surgical removal of the cyst suggests that symptomatology could depend mainly on diffuse or localized increase in intracranial pressure (Marcutan *et al.*, 2016). The history and diagnosis of cyst correlated with the findings of Moghaddar (2007a) that the owner maintained a kid along with a dog. From the dog, the kid might have got the infestation and the dog might have got the infestation from the slaughter house uncooked offal. Here pet dog acted as definitive host and kid acted as intermediate host. Since the pet dog is positive for the Teanid eggs we can correlate these findings.

### ABSTRACT

A kid was presented in lateral recumbency with frequent bleating, on applying pressure caudal to the horn the cranial bone gets depressed with crepitus, which was diagnosed as cerebral coenurus cysts. Under local analgesia, the kid was operated for the surgical removal of cysts and all the cysts were exteriorised. Skin suture were removed after seven days and uneventful recovery was observed.

### KEYWORD

Coenurosis, Kid

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The *Taenia* species causing coenurosis typically have a remarkable affinity towards CNS. The mechanism by which migrating larva identifies the neural tissue is unknown (Stanford University,2010). Our case is one such type. In very few cases coenurus cyst develops in the subcutaneous and muscular areas (Hago and Abu-Samara, 1980) typically



**Fig. 1:** Showing Surgical removal of cyst

#### CONCLUSION

This paper describes about the occurrence, clinical manifestation and lifecycle pattern of *Coenurus cerebralis* in a kid. Anaesthetic protocol, diagnosis and surgical

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including masseter, lion and other muscles (Maity and Bandopadhyaya, 1991). If the owner accidentally ingested the egg via oral fecal route he would be a victim to the coenurosis. So, pet dogs should be periodically dewormed and should not be fed uncooked offals to avoid these transmissions.



**Fig. 2:** Showing kid on day 3<sup>rd</sup> after surgery.

management of the condition are explained. Pet dog accompanied the kid probably served as a source of infection and hence pet owners are advised to deworm their pets periodically.

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