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RESEARCH ARTICLE

SUCCESSFUL MANAGEMENT OF TAENIA HYDATIGINA IN A 3 MONTHS OLD PUP- A CASE REPORT

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ABSTRACT

A 3 months old male indigenous pup was presented with the history of vomitings, diarrhoea and worms in faeces to Veterinary Clinical Complex, College of Veterinary Science, Rajendranagar, Hyderabad. On clinical examination revealed normal parameters of temperature, heart rate and respiratory rate. conjunctival and buccal mucosal membranes are pale, skin tentation time was 3 seconds, deworming and vaccination not done. On microscopic examination of faecal sample revealed taenia ova. The collected worm was processed in laboratory of veterinary Parasitology and diagnosed as dog tapeworm *Taenia hydatigena* based on uterine branches of gravid segments. On haematological examination revealed decreased Red blood cells and Hematocrit. The pup was successfully managed with Dewormer tablet Eazy pet® @7.5mg/kg body weight (praziquantel, pyrental pamoate and febental, Intas Pharmaceuticals) and supportive therapy was provided with Pure crystalline essential aminoacids, iron sucrose, ondansetron and aRBCe pet syrup. pup showed improvement on third day of treatment and complete recovery noticed on 14th day of treatment. After 14th day faecal sample was examined and revealed no parasitic ova. Hence Deworming played significantly an important role in control of tapeworm infection and animal health.

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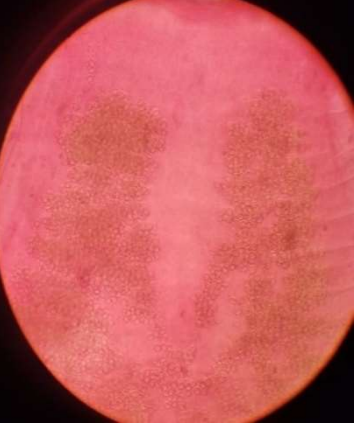
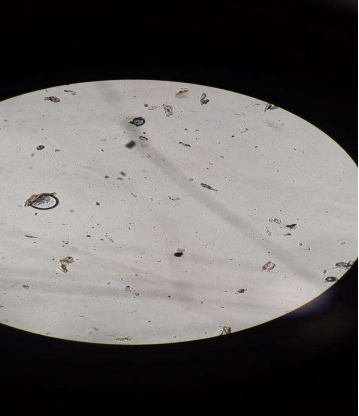
INTRODUCTION

Gastroenteritis is inflammation of the gastrointestinal tract (stomach and the intestines), it can be caused by bacteria, viruses and parasites. Most of dogs with gastroenteritis will have intermittent episodes of vomiting and diarrhoea. Due to parasitic infection such as round worms, tape worms and whip worms can cause gastroenteritis in dogs, in the present case gastroenteritis is due to presence of tapeworms (*Taenia hydatigena*). Infection of *Taenia* species is commonly found in dogs. (Bj thakre et al., 2019) The family Taeniidae are usually large parasitic tapeworms, length of gravid segment more than width having indirect life cycle. The adult worms are parasitic in small intestine of man, dog, cat and other wild carnivores and felines. The gravid segments containing embryonated eggs are passed in the feces and further development in an intermediate host which usually is a herbivore mammals (James E 2012) (sheep, goat and cattle etc.). *Taenia hydatigena* occurs in small intestine of dogs and other wild carnivores, may grow up to 75-500cm (Bhatia, B.B, revised 2016).

Usually adult worms doesn't cause much inconvenience. However they may produce chronic enteritis, signs of colic, loss of appetite, emaciation etc (Suresh singh 2003).

CASE PRESENTATION

An Indigenous 3 months old male pup named Boyle was presented to the Veterinary clinical complex (figure i), College of Veterinary Science, Rajendranagar, Hyderabad. showed chief clinical signs of vomitions (Ettinger et al.,2010) and diarrhoea since 2 days and subsidiary complaint with inappetence, as per owner pup ate dung cake and no deworming and vaccination was done .On clinical examination of pup revealed the normal rectal temperature ranging from 101.7°F to 102°F , heart rate @ 90 bpm (beats per minute), skin tentation time 3 seconds, both buccal & conjunctival mucous membranes are pale and presence of worms in feces of pup measuring about 45cm (figure iii) ,On microscopic examination of faecal sample revealed presence of *Taenia* eggs (figure vii)

		
i). Pup presented to Veterinary Clinical Complex	ii).Collected worms in normal saline	iii).Length of worm 45 cm
		
iv).Taenia hydatigina gravid segment under 4X	v). Taenia hydatigina gravid segment under 4X	vi). Taenia hydatigina gravid segment under 10X
		
vii). Taenia hydatigina eggs under 10X	viii). Dewormer used in present case	ix) No parasitic ova after 14 days. under 10X

SAMPLE PROCESSING

The collected faecal sample along with adult worms (figure ii) brought to the Department of Veterinary Parasitology laboratory in normal saline after several washes with distilled water to remove the excess debris from adult worms then individual gravid segments are fixed in 10% formalin for 48 hrs in between the slides after 48 hrs of fixation washing under slow running tap water for 12 hrs to remove the traces of formalin then dehydration with alcohol in ascending grades of alcohol then the Gravid Proglottids were excess stained with

an alcoholic Borax carmine for 6 hrs followed by differential staining was done with 1% acid alcohol to remove excess stain. This complete process was monitored under a stereo or dissecting microscope, then the specimens were dehydrated in Ascending grades of alcohol followed by clearing in creosote and mounted on a glass slide with Canada Balsam (Juyal *et al.*, 2013). On processing the sample diagnosed as dog tapeworm *Taenia hydatigina*, based on Uterine branches in gravid segments (Figure IV, V and VI).

DISCUSSION

T. hydatigena is a ubiquitous tapeworm found in domestic animals worldwide. Dogs and other carnivores such as, foxes, wolves and cats are the definitive hosts of *T. hydatigena* while the metacetodes are found in sheep, goats, cattle, pigs and wild boars, which act as the intermediate hosts (Soulsby,1982), Treating Tapeworm infections usually done with praziquantel or epsiprantel (Saari *et al.*, 2018). Animal was treated with tablet Eazypet @ 7.5 mg/kg body weight P/O (Eazy pet tablet contains praziquantel, pyrental pamoate, febental) (Figure VIII), along with supportive therapy was given with 5%Dextrose normal saline @100 ml I/V, inj zofer (ondansetron) 0.2mg/kg b.wt, o-rofer-s [iron sucrose]0.5mg/kg. bwt, Astymin-3 @ 10 ml I/V [pure crystalline essential amino acids injection] and aRBCe Pet syrup(vetoquinol India Animal health private limited) . pup showed improvement on third day of treatment and complete recovery noticed on 14th day of treatment. After a period of 14 days again faecal examination is done revealed that no parasitic ova was present (figure ix). This interprets presence of worm burden in animal will cause illness. Praziquantel works by causing Impaired membrane fluidity and sspatic contracture of worm's muscles which leads to death of worms. (Marina clare vinaud *et al.*, 2017)

CONCLUSION

Deworming is a key step in keeping animal healthy. It is a process of giving medication to get rid of the parasites like tapeworms, hookworms, roundworm, whipworms.

These worms may cause severe illness and could be fatal too. Therefore all the pet owners must and should follow deworming as per schedule without showing negligence, to defend their pets against worms.

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