

# Ileal perforation and peritonitis due to taenia a rare case

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**Abstract-** Tapeworm infection is major threat in many developing countries. Despite asymptomatic patients some develop serious conditions like intestinal obstruction. due to entanglement of the worms which may leads to perforation which is a rare cause of acute abdomen. Taenia solium infection is caused by ingestion of undercooked pork meat containing cysticercus cellulose. Ileal perforation by taenia solium is very rarely reported condition in literature.

## I. INTRODUCTION

Tapeworm is also known as taenia and two common species are taenia solium and taenia saginata. Man is defensive host of both while intermediate host is pig for taenia solium and cattle is for taenia saginata(1). In literature few cases caused of perforation by taenia are reported. Other common parasites are ascaris, trichuris trichura, enterobovius vermicularis(2). In this report a large tapeworm causes perforation in distal ileum.

## II. CASE REPORT

A 35years old male presented to surgical emergency with sudden onset of pain following distension of abdomen. Pain was initially I lower abdomen but later become diffuse through whole abdomen. There was history of low grade fever, nausea and vomiting for 10 days duration. Patient was labourer and nonvegetarian. On examination patient was febrile (temp 101<sup>o</sup>F) tachycardia (pulse 110/minute), blood pressure 100/70 mm of Hg. Abdomen was distended, tenderness, and guarding was present, bowel sound was absent. On routine laboratory test Hb 9gm% total count 14300/ccmm differential count shows relative neutropenia. X-Ray abdomen shows gas under right dome of diaphragm. So diagnosis of perforation peritonitis made and emergency laparotomy was performed which revealed a single large perforation in terminal ileum (figure 1) through which a large tape worm is coming out which was taken out (figure 2) peritoneal cavity was thoroughly lavased. Perforation site was closed after freshing of margins parasite was send for histopathology. Patient was allowed to take oral liquids and semisolid when he tolerated for it.

## III. OUTCOME AND FOLLOW UP.

Patient was discharged with oral praziquantel 600mg and in our follow up and doing well.

## IV. DISCUSSION

Taeniasis is common in tropical areas. It is ubiquitous disease occurs where existence of pigs and humans are associated. Cysticercosis was first described by Aristophanes and Aristotle

in the 3rd century B.C. Later it was noticed in humans by Parunoli in 1550. It was also described in ancient Indian Medical book, the Charak Sanhita(3). The parasite has long since been eradicated from the most developed countries, but it still remains common in central and south America, South Asia and China, with patchy distribution in Africa. The disease is known to be caused by ingestion of undercooked pork in areas lacking basic sanitary facilities and by ingestion of vegetables contaminated by sewage product. Muslim population does not eat pork due to religious reason this is the reason why, it is very rare in Islamic countries.

The studies regarding Taeniasis are limited. This is an important disease as most of the patients end up with surgical complications with high morbidity and mortality(4). A small bowel perforation caused by T.solium is very rare and indistinguished from other acute abdomen conditions(5). Typhoid fever with intestinal ulceration is most common cause of intestinal perforation worldwide. The mortality rate in small intestinal perforation due to infestation is high(6) T. solium is a ribbon like, segmented flat worm residing in the small bowel of man. It has a scolex (head); neck and numerous proglottids which have the independent reproductive capacity. The terminal half of the parasite consists of mature gravid segments. Adult worm resides in the upper jejunum and may live for decades. The T.solium – scolex shows four suckers and numerous hooks, whereas T.saginata shows only suckers. T.solium gravid segment shows 7- 12 lateral uterine branches on each side; T.saginata shows 15-20 uterine branches on each side(7). Presence of tapeworms in the bowel lumen contributes considerably to the bowel perforation where no obvious etiology of perforation is found as in our case. Management of the condition is same as other surgical abdominal emergency conditions which is emergency laparotomy after primary resuscitation of patient and the patient is observed for a minimum of six months to one year, as a small piece of viable neck or scolex can regenerate into a new worm. The treatment of choice is a single dose of Praziquantel 10-20 mg per kg body weight or Niclosamide 2 grams as a single dose(8).

## V. CONCLUSION

Infection by taenia is rare cause of intestinal perforation so Cases presenting with pain abdomen, guarding in endemic areas should be evaluated for Taenia and meticulous search must be done to trace the parasite if any. The awareness regarding the disease and complications of the disease is to be enlightened to the society. The safe sanitary practices and hygienic food habits are to be encouraged, especially in people of low socioeconomic status.

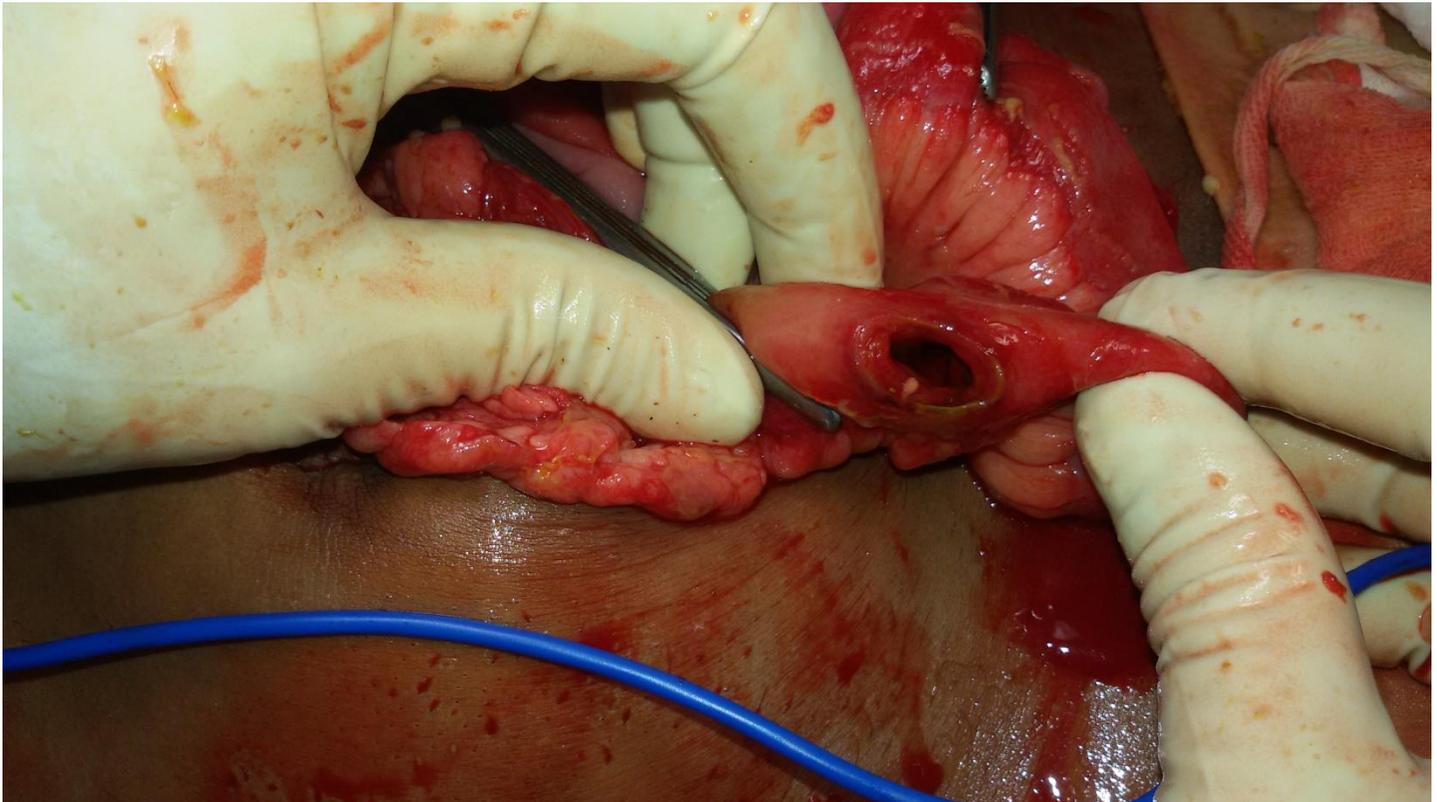
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**Figure 1. Single large perforation in terminal ileum**



**Figure 2. Single large parasite Taenia after removal from perforated site of ileum**

