

## CASE REPORT

### TAPE WORM: RARE CAUSE OF SMALL BOWEL PERFORATION

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**ABSTRACT:** Developing countries like India have high incidence of worm infestations, like *Ascaris lumbricoides*, *Enterobius vermicularis*, *Trichuris trichura* and *Taenia*. Most of these worm infestations are asymptomatic, with widespread infestation of *Ascaris* seen in children. Most of the times the worm infestation causes malnourishment, and some incidences of intestinal obstruction, appendicitis and obstructive jaundice are also present. Rare cases of intestinal perforation have been reported in the literature, similarly we present here a case of ileal perforation due to *Taenia saginata*.

**KEYWORDS:** Ileal perforation, peritonitis and *T. Saginata*.

**INTRODUCTION:** In India due to the unhygienic conditions, worm infestation is a very common problem, presenting with a lot of morbidity and mortality. Sometimes it might even present with intestinal obstruction and perforation. There are reports of *Ascaris lumbricoides* leading to gastric perforation and *Taenia* causing small bowel perforation with peritonitis.

Perforation with peritonitis is a common surgical emergency with duodenal ulcer, typhoid ulcer, tubercular ulcer or appendicular perforations leading the cause. But, perforation due to *Taeniasis* is rather rare. Here we present a case report of perforation due to *Taenia Saginata*.

**CASE REPORT:** A 20 year old patient, Hindu by religion who is a cooli came with chief complaint of sudden onset severe pain in abdomen and fever since two days. The pain was followed by 5-6 episodes of vomiting, not passing stools since one day. On examination there was abdominal distension guarding and rigidity. X-ray finding: multiple bowel loops were present with air-fluids levels.

His complete blood picture revealed Hb 12gm% and total leukocyte count -5300 /mm<sup>3</sup>, other investigation were normal. His blood sugar level, HIV-test and renal functions were normal. Diagnosis of Perforative peritonitis was made and patient was posted for emergency laparotomy. Intra operatively small bowels flimsy adhesions with pus pockets were identified. Multiple flakes were present. About 2 cm perforation was identified on the antemesentric border of Ileum about 15 cm from ileocaecal junction. The bowels were decompressed through the perforation and one large tapeworm was identified. The tapeworm removed and thorough wash of perforation with saline, betadine was given, the perforation was closed with 2-0 vicryl, interrupted single layer. Thorough peritoneal wash was given. Postoperatively on 3<sup>rd</sup> day, the patient developed feculent discharge through the right drain. The patient was managed conservatively on higher antibiotics until the perforation sealed on its own. Patient was given albendazole for 3 days. Histopathology report of worm confirmed it to be of *T. Saginata*.

**DISCUSSION:** *Taenia* are grouped under cestode infections which are important zoonotic diseases. Two parasites of importance in taeniasis are *Taenia solium* and *Taenia saginata*. They are classified as

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cyclo-zoonoses because they require more than one vertebrate host species to complete their development cycle.

*T. Saginata* and *T. solium* pass their life cycles in two hosts, in man, the adult parasite live in the small intestine. The adult *T. Saginata* measures 5 to 12 meters in length, while the *T. Solium* measures 2 to 6 meters. The larval stage of *T. Saginata* occurs in cattle, while pig is the main host for *T. Solium* and might lead to muscular, ocular and cerebral cysticercosis.

Man becomes infected with these worms due to under cooked food, contaminated vegetables or water. Most of the times the infection is asymptomatic except for an occasional abdominal discomfort, anorexia and chronic indigestion.

Praziquantel and Niclosamide have replaced former taenicides (i.e., mepacrin). They are safe and effective in more than 90%. Praziquantel is given in a single dose of 15 mg/kg repeated after 14 days in intensive infections or Niclosamide 60-80 mg/kg/day for 5-7 days.

Maintenance of proper hygiene during preparation of food, sterilizing of water and proper hand wash before consuming food, go a long way in preventing the infection with this parasite.

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**Fig. 1: Perforation closure**

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**Fig. 2: Perforation caused by the tape worm**



**Fig. 3: Tape worm aspirated through the perforation**

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**Fig. 4: Tape worm found in the peritoneal free fluid**

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