

## A Rare Cause of Intestinal Obstruction

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### Abstract

Surgical complications are uncommon for tapeworm especially in non-endemic areas. We report one case of a 49 years old lady presented with small bowel obstruction caused by *Taenia saginata*. This is an unusual and unexpected cause even in tropical countries where helminthes infestation is common. Although rare, this possibility should be kept in mind as a very rare possible cause of bowel obstruction. To the best of our knowledge, this is the first report from North Africa documenting this rare cause.

**Keywords:** Bowel obstruction; Small bowel; *Taenia saginata*; Non-Endemic areas

### Introduction

Helminths are large, multicellular organisms that are generally visible to the naked eye in their adult stages. *Taenia saginata* is found in many areas worldwide, but is most common in tropical and underdeveloped countries [1]. Infected individuals may remain asymptomatic for years. The usual symptoms are vague or mild abdominal pain or discomfort. Less common symptoms are nausea, change in appetite, weakness and weight loss [2]. Intestinal obstruction and perforation of the gut are very rare [3].

### Case Report

A 49-year-old Tunisian female ASA I, was admitted to our service in June 2015. She complained with pain at the right lower quadrant of the abdomen and bloating for 05 days. She had history of recurrent abdominal pain and malnutrition since 03 months. She never consulted for these symptoms. Upon physical examination; anemic appearance, generalized abdominal tenderness and rebound tenderness in right iliac fossa was noted. Laboratory tests revealed: Leukocytosis [19590 × 103/μl (range 4-10)] with neutrophil count 17768/μl and 157/μl of eosinophils and a high C-reactive protein level of 19.86 mg/l (range <5). X-Ray showed air-fluid levels of small bowel kinds. An abdominal Computed Tomography (CT) scan was performed and showed dilated small intestines with free fluid in the Douglas and mass in right iliac fossa. Urgent surgery was planned. Intraoperatively, small bowel was dilated and inflammatory agglutinated in right iliac fossa. The bowel was viable. A nasogastric tube was inserted for decompression, but after many sessions of suction it got blocked. We retrieved the tube and we found that it was blocked by a long tapeworm totally measuring 2.6 m in length. The post-operative course was uneventful. Parasitological examination showed that the parasite was *T. saginata*. The patient was given zentel, a broad spectrum antihelmenthic drug. She was well during the follow-up 02 months.

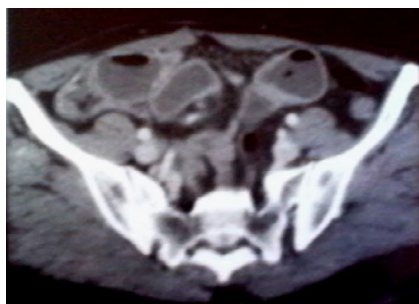


Figure 1: Computed tomographic: distended small bowel.



Figure 2: *Taenia saginata*.

### Discussion

*Taenia saginata* are the intestinal tapeworms for which humans are the only definitive hosts. The length of adult worm is usually less than 5 m for *T. saginata*; however, it may reach up to 25 m [4]. Although the tapeworm seems to be a benign parasitic disease, it can lead to serious surgical gastrointestinal system complications that are seldom reported in the medical literature [5]. The tapeworm attaches to the mucosal surface using four suckers on its anterior scolex. Migration of the proglottids to the gastrointestinal system lumen can lead to rare serious acute surgical conditions, such as acute appendicitis, Meckel's diverticulitis, pancreatitis, cholecystitis, liver abscess, obstruction and perforation of the intestine and anastomotic leakage [2,5]. With a prevalence rate of up to 10% among some population groups in endemic area [3]. Mechanical obstruction of small bowel is very rare especially in unaffected communities. These case indicate that taeniasis of the gastrointestinal tract can be the cause of the most unusual complications. The diagnosis of these rare circumstances is usually made intraoperatively [6]. Surgery is recommended only for the treatment of complications [6]. Taeniasis is preventable by improving sanitation and strict inspection of beef prior to sale. Beef should be cooked to 60°C for over 5 min before consumption [7]. The diagnosis is done by identifying eggs or proglottids in repeated stool specimens. The perianal region can be examined using a cellophane-tape swab to detect ova as well. Serologic tests are not helpful [6].

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## Conclusion

In conclusion, taeniasis is a very rare entity that should be considered in the differential diagnosis as the cause of an acute abdomen with unusual surgical complications. So, although rare, this possibility should be kept in mind as a very rare possible cause of bowel obstruction even in non-endemic country. Although surgery is indicated for complications, prevention is the best treatment method.

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