



Tape Worm Infestations in 2 Persons of Beef Consumption

KEYWORDS

tapeworm, beef consumption.

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ABSTRACT

Tapeworms are long, segmented worms of the class Cestoda, which comprise 1 of 3 classes of parasitic worms (worms that require a host within which to mature). These worms lack an intestinal tract and instead can absorb nutrients through their integument. Although infection with *T. saginata* (obtained from raw or undercooked beef) occurs worldwide, the prevalence is less than 1%. Here we report 2 cases of tape worm infestation presenting to Government General Hospital Kurnool.

Introduction:

Tapeworm infection is the infestation of the digestive tract by a species of parasitic cestode flatworm called tapeworms. Live tapeworm larvae (coenuri) are sometimes ingested by consuming undercooked food. Once inside the digestive tract, a larva can grow into a very large adult tapeworm. Additionally, many tapeworm larvae cause symptoms in an intermediate host.

Case reports:

During the period of march 2014 to july 2015 (17 months) 2 cases reported to infectious diseases outpatient department.

First patient is an elderly person admitted for management of diarrhea & vomiting. During hospital stay for 7 days 2 tapeworms came from his mouth spontaneously & removed successfully by the patient himself in two different days. Stool culture came as negative. On stool examination proglottids are present. He presented with c/o vomiting 6 times associated with food particles and loose stools 5 episodes watery in consistency not associated with blood & mucus in stools, pain abdomen. He had given the history of tapeworm being found in vomiting. He is a smoker, known alcoholic. In the past he was operated for retention of urine. He had habit of beef intake.

On examination he was conscious, coherent, with pulse : 82 bpm, B.P of 120/80mm of Hg. Other system examination was normal. On investigating CT scan brain : normal study. Stool - culture & drug sensitivity - no organisms isolated. proglottids present. Upper G.I Endoscopy : normal study. Ultrasound abdomen : liver, g.b, pancreas, spleen - normal

Kidneys : rt. 11.5 -4.6/lt. 10-4.8 cm.g 2 echogenicity +

Urinary bladder : g 3 prostatomegaly .

Bowels : wall edema present, minimal inter bowel loop fluid noted .

ECG : within normal limits .

Complete blood picture : HB -13.4 g, WBC -TC—27000/cu.mm, platelet count: 279000/cu.mm.

Blood Biochemistry :

RBS : 79 mgs%. Sr.creatinine : 2.5 mgs%.

Na + 130 , K + 3.6 mgs , cl - 100 mmol/L .

LFT : T.Bilirubin -0.7, SGOT-21, SGPT-14, Alkaline phosphatase -160 u/l .

Treatment given :

Tab. Albendazole for 14 days .inj.ceftriaxone/i.v.fluids/pan-toprazole.

The second patient was a 30 year old man presented with history s/o proglottids per stools present in stool examination. He also had a history of vague abdominal pain which lasted for the last few months. He had a habit of beef consumption. On examination he was conscious and coherent with stable vital signs and normal systemic examination. He was investigated for proglottids in stool which were positive. No organisms were isolated in stool culture. Ultrasound abdomen was normal. His blood biochemistries were within normal limits. He was also treated with albendazole and his symptoms improved



Fig: showing large tapeworm isolated in the vomiting

of the first patient.

Discussion:

Tapeworms are long, segmented worms of the class Cestoda, which comprise 1 of 3 classes of parasitic worms. The adult consists of a head (scolex), where the worms attach to the mucosa of the intestine; a neck; and a segmented body that contains both male gonads and female gonads (proglottids).

Typically, a cestode requires one or more intermediate hosts in their life cycle. The life cycle is as follows:

The eggs are passed into the environment from the primary host.

The eggs are ingested by an intermediate host in which they hatch.

The larvae enter the tissues of the intermediate host and encyst.

The primary host ingests the cysts in the flesh of the intermediate host.

When humans are the primary hosts, the adult cestode is limited to the intestinal tract. When humans are the intermediate hosts, the larvae are within the tissues, migrating through the different organ systems.

T. saginata has a high endemicity in Latin America, Africa, Middle East, and central Asia and has a moderate endemicity in Europe, south Asia, Japan, and the Philippines. Most occurrences are found in areas which lack adequate sanitation. Many cestode infestations are asymptomatic. However, once symptoms occur, they are usually vague GI complaints such as abdominal pain, anorexia, weight loss, or malaise. Some of the more serious infestations result in symptoms from mass effects on vital organs, inflammatory responses, nutritional deficiencies, and the potential of fatal anaphylaxis.

With *T. saginata* infection, usually, the patient becomes aware of infection when worm segments are passed in the stool. Some patients complain of epigastric pain, diarrhea, and weight loss.

Recent reviews summarize that most intestinal tape worm infections can be effectively treated with albendazole, praziquantel or niclosamide. These antihelminthic agents have effective rates of 85-98%. Praziquantel was found to be 100% effective in the treatment of *Taenia*. After treatment, the passage of segments and eggs may continue for several days. Treatment is reevaluated for success by examining the stool at intervals allowing regrowth of worms: 3 months for *Taenia* species.

Potential complications of tapeworm infestation systemic cysticercosis, Obstruction of the appendix or pancreatic or bile ducts, intestine, anemia.

The cure rate for tapeworm infestation is greater than 95% in patients who receive appropriate treatment.

Conclusion :

Both of above mentioned patients are having habit of beef consumption. Recently beef consumption banned in some states. Tape worm infestation a rare entity now a days confined to under developed and unhygienic food practices and beef consumption.

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