

## INTESTINAL MASS CAUSED BY FASCIOLOPSIS BUSKI

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### ABSTRACT

#### BACKGROUND

Fasciolopsiasis is a zoonotic infestation caused by the trematode *fasciola hepatica*. It presents a wide variety of clinical pictures ranging from eosinophilia to ambiguous gastrointestinal symptoms in the acute phase. However, it may often be overlooked, especially in the acute phase because of uncertain symptoms. Here, we report a case of an intestinal mass caused by *Fasciolopsis buski*. Fasciolopsiasis and other food-borne trematodiasis are included in the list of important helminthiasis, which are very commonly found in Indian subcontinent with major role in human growth and development. Plant-borne trematode species that have been found to affect humans: *Fasciola hepatica*, *Fasciola gigantica* and *Fasciolopsis buski* (Fasciolidae), *Gastrodiscoides hominis* (Gastrodiscidae), *Watsonius watsoni* and *Fischoederius elongatus* (Paramphistomidae) are mostly six in number. Present climate and global warming mostly change pattern of prevalence of snail-borne helminthiasis. Fasciolopsiasis is a good example of an emerging/re-emerging parasitic disease in many states of India as a consequence of many phenomena related to environmental changes as well as man-made modifications. A 48-year-old woman was investigated for abdominal discomfort. The patient with no previous symptoms presented with back pain and abdominal distension with nausea and release of two or three leaf-like structures along with vomits. With a differential diagnosis of *Fasciolopsis buski*, serology using Falcon Screening Test Enzyme-Linked Immunosorbent Assay (FAST-ELISA) was performed that established the final diagnosis.

#### KEYWORDS

Fasciolopsis, CT, Trematoda, Intestinal Fluke.

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#### BACKGROUND

*Fasciolopsis buski*, a parasitic flatworm of the class Trematoda, Phylum Platyhelminthes that infects the intestine of various mammals including.<sup>1</sup> It is commonly observed in developing countries. The incidence has been increasing since the year 1980. Food-borne trematodiasis are a group of neglected tropical diseases.<sup>2</sup> The triad of fever, right upper quadrant pain, nausea, vomiting and absolute peripheral blood eosinophilia should raise suspicion of intestinal fascioliasis.<sup>3</sup> Here, we present a case of an intestinal mass caused by *Fasciolopsis buski* that was initially thought to be a peptic ulcer. The lady complaints with back pain and abdominal distension with nausea and release of two or three leaf-like structures along with vomits.

#### CASE REPORT

A 48-year-old woman was investigated for abdominal discomfort. The patient with no previous symptoms presented with back pain and abdominal distension with nausea and release of two or three leaf-like structures along with vomits. The patient's symptoms had been continuously increasing for the past 3 years. The patient had lost 15 pounds in the past 5 months. The patient also had concurrent nausea and lack of appetite.

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The patient was first admitted to another hospital, where an Ultrasonography (USG) and an abdominal Computed Tomography (CT), a complete blood count was performed that revealed eosinophilia (2,900/mm<sup>3</sup>, N: 0-400/mm<sup>3</sup>, 36% of leukocytes), which led to the suspicion of a parasitic infection. Patient gave history of consumption of raw aquatic plants. She belonged from rural part of South of West Bengal, where this aquatic plants are readily consumed. Serum IgE was also elevated > 400 IU/mL. Standard sedimentation stool examination was done on three consecutive days and on second and third day ova was demonstrated.

With a differential diagnosis of *Fasciolopsis buski*, serology using Falcon Screening Test Enzyme-Linked Immunosorbent Assay (FAST-ELISA) was performed from the stool of the patient that established the final diagnosis. Antiparasitic therapy using triclabendazole was initiated. The patient was then discharged and asked to return 3 months later for followup.



Figure 1. CT of Abdomen of the Lady



**Figure 2. Egg in Stool**

### DISCUSSION

Fasciolopsis is uncommon in developed countries, but more commonly seen in developing countries.<sup>[4,5]</sup> The identification of *Fasciolopsis buski* eggs in the stool is a standard method for the diagnosis of Fasciolopsis. The parasites do not pass eggs in the acute stage of the disease before they become adults, although the symptoms of the disease are the most severe at this time.<sup>[4,5]</sup> Additionally, parasite eggs may not be detected when the parasite lays eggs in intervals, which was observed in cases of chronic fasciolopsiasis. Humans are infected by eating water plants.<sup>[6]</sup>

Serologic tests that are essential for diagnosing acute fascioliasis include FAST-ELISA, indirect haemagglutination, complement fixation, indirect immunofluorescence (IIF), counter-electrophoresis and double diffusion.<sup>[7]</sup> However, despite the fact that these tests are quite sensitive, they may cross-react with other parasitic infections, such as *Echinococcus*, which is relatively common in West Bengal. Immunoserological tests are valuable in the early hepatic stage, but ELISA testing is more.

Rapid and reliable,<sup>8</sup> successful treatment correlates with a decline in ELISA titres with antibodies detectable for years after infection. FAST-ELISA has a sensitivity rate of 95%, although the exact specificity has not been determined.<sup>9,10</sup>

Triclabendazole has been shown to be very effective against *Fasciolopsis buski* infections. The drug is administered at a dose of 10 mg/kg for 1 or 2 days, and it is well-tolerated. We followed a similar treatment protocol.<sup>11</sup>

### CONCLUSION

Mostly in the developing countries *Fasciolopsis buski* infections are commonly found. But from the rural areas of Southern Bengal, this case was reported after a long time. So similar cases need to be screened for fasciolopsiasis and one

pilot study need to be done, because in rural areas usually people do not complain until there is some unusual thing. In this case, the adult worm came out with the vomitus and that is why the patient reported to our hospital OPD and that is why this case was reported.

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