Live Faciolopsis buski in a migrant with Subacute intestinal obstruction, a case report from a tertiary care hospital.

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Abstract:
A thick fleshy leaf shaped worm, identified as Fasciolopsis buski was found in the vomitus of a 15 year old migrant from Bihar. The patient was presented with severe epigastric pain, vomiting and constipation for a period of about 3 days. Clinical examination showed epigastric tenderness and mild anaemia. Ultrasonogram abdomen revealed free floating live adult worms in the jejunum with dilated small bowel loops. Stool examination after deworming also showed large bile stained operculated eggs of Fasciolopsis buski. Patient responded well with praziquantel. Reporting of fasciolopsiasis for the first time in non-endemic area, Coimbatore caused a great concern to the local health authorities indicating a necessity to initiate surveillance among migrants and preventive interventions.

Keyword:
Fasciolopsis buski, intestinal fluke, subacute intestinal obstruction.

Introduction:
Fasciolopsis buski is the largest intestinal fluke parasitizing humans. It was first described by Busk in the duodenum of an Indian sailor in 1843 in London and its life cycle in humans was elucidated by Barlow in 1925. Fasciolopsis buski infection is commonly seen in various parts of Southeast Asia and endemic in Bangladesh, Vietnam and Thailand. In India, it has been reported from the states of Assam, West Bengal, Bihar, Uttar Pradesh and Maharashtra. Adult worms live in the small intestine, commonly duodenum and jejunum of humans and pigs. The operculated eggs are liberated in faeces, embryonate and hatch in water releasing miracidium which encyst as metacercariae in fresh water plants after passing through the intermediate host snails of planorbidae family. Human infection occurs by eating raw contaminated water plants or drinking of untreated water containing the metacercariae. The metacercariae excyst in the duodenum of the host, and mature to become the adult worms in three months, without further migration.
The key pathological features of fasciolopsiasis may be traumatic, obstructive or toxic damage to the intestinal mucosa. Severe infection causes malabsorption with generalized ascites, intestinal erosion, ulceration and also increased mucous secretion leading to partial intestinal obstruction. Absorption of metabolites of adult worm may also induce toxic and allergic reactions. Most infections are usually mild and asymptomatic. Clinical features are related to the parasitic load.

Heavy infection causes abdominal pain, diarrhoea, flatulence, poor appetite, vomiting, intestinal obstruction, severe anaemia, eosinophilia and leucocytosis. Ascites, anasarca and death are reported in later stages of the disease. In this report, we hereby present the first case of fasciolopsiasis diagnosed at Coimbatore, Tamilnadu, in a 15 year old migrant from Bihar.

Case report:
A 15-year-old boy was admitted in our institute with the complaints of epigastric pain, vomiting and constipation of three days duration. There was no abdominal distention, fever, weight loss and loss of appetite. He had similar episodes of epigastric pain on and off for the past 6 months. The boy had migrated from Raipur, Supaul district of Bihar, three months back where he used to take bath in pond and also had history of intake of edible water plants on and off. On examination the boy was thin built, anaemic and epigastric tenderness. Vitals were stable. During his stay in hospital on the second day, he had frequent episodes of non-bilious vomiting. One episode of vomitus showed presence of three live leaf shaped worms moving about. The worms were sent in a glass beaker to the laboratory for identification. The worms were unsegmented, fleshy, dorsoventrally flattened, reddish brown in color and 25mm x 18mm in size. Cephalic cone was absent which rules out the possibility of the trematode as being Fasciola hepatica. The diagnosis is often missed or delayed due to lack of awareness regarding existence of this infection in non-endemic areas like Coimbatore. But Coimbatore being the Manchester of South India is a hot spot for migrants from other parts of the country in search of job opportunities. There is always a chance of import of certain parasites through the migrating population from endemic areas and the clinician should consider Fasciolopsis buski infection among one of the differential diagnosis for vague abdominal pain with constipation. In this case, the patient was treated with praziquantel which can act upon the adult worm by increasing the permeability of the parasite cell membrane leading to loss of intracellular calcium; massive contraction, paralysis and death in synergy with the host humoral immune system and enhancing phagocytosis. To conclude, the report of fasciolopsiasis from an area that is completely non-endemic for this clinical entity signifies the need for an effective surveillance mechanism among patients from endemic areas with complaints pertinent to a variety of infectious diseases including fasciolopsiasis. It also emphasizes the need to conduct health education programmes at the community level focused on measures such as limited access to open and untreated water ponds, avoid eating of unwashed raw vegetables/water plants, discouraging the use of night soil as fertilizer etc. This will reduce the sources of infection in endemic areas and thereby prevent further transmission and incidence of this.
Figure 1: Photograph showing ventral & dorsal surface of adultworm of Fasciolopsis buski

Figure 2 a) & b): Photograph showing the Operculated egg of Fasciolopsis buski (X 1600)

Figure 3: Photograph of USG – Abdomen showing the floating leaf shaped adult worm of Fasciolopsis buski

Reference:


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