



"CASE REPORT ON UNUSUAL PRESENTATION OF LIVER FLUKE [FASCIOLA HEPATICA] AS ABDOMINAL LUMP"

General Surgery

Dr. Priyam Pritesh Shah

2nd year Resident, Department of general surgery, SMIMER

Dr. Jay Prajapati

3RD year Resident, Department of general surgery, SMIMER

Dr. Dinesh Prasad

Associate Professor, Department of general surgery, Smimer hospital, surat.

ABSTRACT

We want to report here a rare case of Fasciola hepatica infection confirmed by histopathological examination of an abdominal mass arising from transverse mesocolon. A 40-year-old female patient was admitted to our hospital with abdominal pain and a lump in the right upper quadrant of the abdomen. Abdominal CT showed infective fluid collection noted in the right hypochondrium adjacent to pre-gastric, pre-pyloric region reaches up to transverse mesocolon. On surgical exploration, masses were found arising from the mesocolon of the right transverse colon. Histologically features suggestive of parasitic inflammatory pathology suggestive of Fasciola hepatica. finally, a rare case of fasciola hepatica has been established in this study by histopathological examination of F. hepatica in the abdominal mass arising from the right transverse mesocolon.

KEYWORDS

Fasciola hepatica, mesocolon

INTRODUCTION:

Fasciola hepatica known as a common liver fluke or sheep liver fluke is a parasitic trematode, that infects humans and is transmitted by sheep, cattle, and goats. Humans are an accidental host for fasciola hepatica infection. Fascioliasis is widely distributed throughout the world. The hyperendemic area for fasciola hepatica is south America, Egypt. In humans, the infection begins with ingestion of contaminated water containing encysted larva.

Larva exocysts in the stomach penetrate the duodenal wall escape into the peritoneal cavity then pass through the liver capsule to enter a biliary tree. Fasciola hepatica worm is commonly found bile duct and gall bladder however sometime it may be detected in the cecum, colon, eye, and Brain. Neurological and ocular fascioliosis is fatal or disabling. Signs and Symptoms presentation is in two phases hepatic phase and the biliary phase. The patient presents with Right upper quadrant pain and tenderness, fever, cholangitis, jaundice, eosinophilia, diarrhea, and abnormal liver function test.

Case Report:

40- year old female presented to the outpatient department with a complaint of abdominal pain and a lump in the RHC region for 30 days associated with multiple episodes of nonbilious vomiting for 15 days. The patient has a history of consuming fresh water plants. The patient has a history of Jaundice 2 months back. Blood investigation Hb-12.3, TLC-9900, platelet - 3,10,000, total bilirubin 0.6, eosinophilia.

Ultrasonography suggestive of an ill-defined heterogenous lesion of 10*6*5 cm with surrounding inflamed mesentery and peritoneum at a region of proximal transverse colon, MDCT abdomen suggest 80cc infective collection with thick wall with thick internal septation in the peritoneal cavity in Right hypochondrium adjacent pre-gastric pre-pyloric region and reaching up to transverse mesocolon.

Usg guided Biopsy taken report suggestive of spindle cell tumor with tumor cell necrosis for which surgical exploration is done from right paramedian incision which shows mass arising from transverse mesocolon extending up to posterior rectus sheath. Whole mass excision was done with primary repair of the transverse colon and mass was sent for Histopathological examination.

In HPE report shows fibro fatty fibro collagenous tissue showing marked infiltrate of eosinophils, few plasma cells, lymphocytes, fibroblast proliferation along with parasitic structure identified with the presence of many epitheloid cell granuloma, the foreign body type of giant cell, necrotic cyst, marked area of necrosis area of congestion and fibrosis. These histological features are of Parasitic inflammatory pathology probably of FASCIOLA family probably fasciola hepatica.

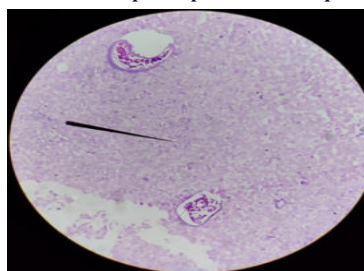
Patient was treated with Triclabendazole 10mg/kg/day for 3days



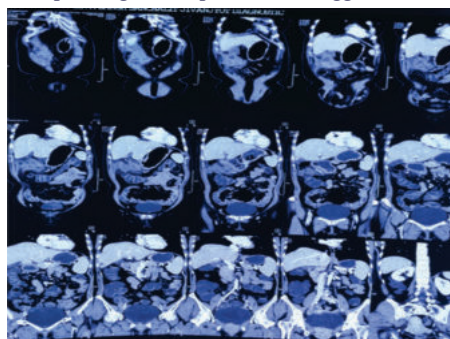
A) Intraoperative image of abdominal lump



B) specimen of fasciola hepatica present as lump



C) Microscopic image shows parasites and eggs



D) Radiological image

DISCUSSION:

Fascioliasis is a zoonotic disease caused by trematode *Fasciola hepatica*, a liver fluke can infect humans by ingestion of contaminated water or freshwater plants. commonly present as right upper quadrant pain, fever, cholangitis, diarrhea, and vomiting but an Abdominal lump is a very rare presentation of *Fasciola hepatica*. The infection begins with the ingestion of food or water contaminated by *Fasciola* metacercariae, which then migrates through the stomach and duodenum. The parasite's excysted form burrows through the intestinal wall and enters the peritoneum, where it takes on an inactive form for a few days before moving on to the liver. This acute phase lasts for three to five months and is marked by hepatomegaly, eosinophilia, fever, and stomach pain. The parasite enters the biliary tree during the chronic phase, where it can lead to cholangitis and biliary colic. Larvae can move to ectopic sites such the brain, epididymis, stomach, caecum, and colon on a rare occasion. Ascending colon and cecum are located near the liver which means the usual route toward the liver. Our case is a rare occasion where eggs and adult fluke were found in a lump which arises from transverse mesocolon which extends up to the posterior rectus sheath.

In this rare type of presentation, Radiological investigations are sometimes misleading. Ultrasonography finding shows an ill-defined heterogenous lesion of 10*6*5 cm with surrounding inflamed mesentery and peritoneum at the region proximal transverse colon. Then CT scan shows 80 cc infective collection with a thick wall with internal septation in the peritoneal cavity in the right hypochondrial region adjacent pre-gastric, and pre-pyloric region and reaching up to the transverse mesocolon. Diagnosis of *Fasciola hepatica* requires demonstration of parasites or eggs in feces and biliary samples. Although stool studies may sometime fail to detect fasciola like in our case. ELISA test is also important to detect fasciola hepatica in difficult cases. In our case, the confirmatory diagnosis was made by histopathological examination of a surgically resected mass which arises from transverse mesocolon in which eggs and parasites of *Fasciola hepatica* are found based on their morphological features.

Therefore the inclusion of *Fasciola hepatica* should be considered in the differential diagnosis of parasitic infection with help of the patient's diet history, eosinophilia, abdominal pain, history of jaundice, screening of ELISA test.

CONCLUSION:

During treatment of abdominal lump of right upper quadrant origin, parasitic inflammatory disease like fasciola hepatica also should be consider as a differential diagnosis. So patient's proper diet history, screening ELISA test and histopathological examination should be done.

REFERENCES:

1. Kim, Ah Jin, Chang Hwan Choi, Sun Keun Choi, Yong Woon Shin, Yun-Kyu Park, Lucia Kim, Suk Jin Choi et al. "Ectopic human *Fasciola hepatica* infection by an adult worm in the mesocolon." *The Korean Journal of Parasitology* 53, no. 6 (2015): 725.
2. Mas-Coma, S., 2005. Epidemiology of fascioliasis in human endemic areas. *Journal of helminthology*, 79(3), pp.207-216.
3. Arjona, R., Riancho, J.A., Aguado, J.M., Salesa, R. and Gonzalez-Macias, J., 1995. Fascioliasis in developed countries: a review of classic and aberrant forms of the disease. *Medicine*, 74(1), pp.13-23.
4. Makay, O., Gurcu, B., Caliskan, C., Nart, D., Tuncyurek, M., & Korkut, M. (2007). Ectopic fascioliasis mimicking a colon tumor. *World Journal of Gastroenterology: WJG*, 13(18), 2633.
5. Lee, S. H., Cho, S. Y., Seo, B. S., Choe, K. J., & Chi, J. G. (1982). A human case of ectopic fascioliasis in Korea. *Korean J Parasitol*, 20(2), 191-200
6. . Gastroenterology, 1D. of. (n.d.). Gastric pseudotumor due to *Fasciola hepatica* : ACG Case Reports Journal