A Rare case of hepatic abscess "CAPILLARIASIS"

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Abstract-
INTRODUCTION
Hepatic capillariasis is caused by C.hepatica, parasite of rodents, dogs, pigs, and other mammals; humans are incidental hosts. Hepatic capillariasis has been described worldwide. Human infection is rare; and is acquired by ingesting eggs contaminated food, water, or soil.
CASE REPORT
A 45 male patient occupation by farmer, chronic alcoholic came with chief complaints of fever since 1 month, abdominal discomfort and yellowish discoloration of eyes since 20 days On clinical examination showed icterus and tender hepatomegaly. Usg abdomen with confirmed same on CT Abdomen showed hepatomegaly with multiple liver abcesses with largest size of 8.2 cm in the right lobe of liver which was liquified, Liver abcess aspiration was send for analysis microscopic examination showed long slender nematode of about 33 mm in length and 0.1 mm in width which was identified as capillaria hepatica, Microscopic examination of the stool sample revealed the presence of bile-stained, peanut- shaped ova, sized approximately 45 × 21 µm with flat mucous plugs at both poles . They were identified as ova of Capillaria.
CONCLUSION
Intestinal capillariasis is a rare presentation in humans , but capillaria hepatica is still rare manifestation , in our case Patient was treated with albendazole for 21 days and broad spectrum antibiotics , review stool sample showed reduction number of ova and adult worms. After giving albendazole and antibiotic coverage patient started clinically improving after 3 days and patient is on followup.

***Keywords*: Capillariasis, Capillaria Hepatica, Liver Abscess , Aspiration Anti-Helminthic Therapy, Albendazole.**

INTRODUCTION

Capillariasis encompasses tissue infection by nematodes of the Capillaria genus, most notably Capillaria hepatica. This parasitic syndrome represents a rarely reported but likely under-recognized cause of hepatic irregularities that can radiologically and clinically closely resemble a pyogenic abscess or necrotic neoplastic process[1].First human cases described in the Americas, hepatic capillariasis remains extremely rare with less than 40 global cases reported, though true incidence likely underestimated [1,2]. Recent decades show most cases originating in areas like the Nile Delta, Brazil and Thailand [3]. Outbreaks of symptomatic capillariasis seem to coincide with periods of poor sanitation and hygiene [4].Transmission occurs via ingestion of embryonated parasite eggs from fecal-contaminated food or water, most often from rats serving as definitive host [5]. Upon gastric passage, larvae hatch in the small intestine, invading the hepatobiliary system via the portal circulation with maturation into adult worms within hepatic parenchyma. This precipitates granulomatous reactions forming micro-abscesses that mimic tumorous or pyogenic liver lesions on standard imaging [5,6]. Lacking routine parasitological stains, histological diagnosis is often missed or delayed. Thus clinical vigilance about this unusual cause of space-occupying liver pathology is imperative to establish early diagnosis and initiate appropriate anti-helminthic therapy.

BACKGROUND

Hepatic capillariasis is caused by C. hepatica, parasite of rodents,dogs, pigs, and other mammals; humans are incidental hosts. Hepatic capillariasis has been described worldwide. Human infection is rare; and is acquired by ingesting eggs contaminated food, water, or soil. we report a case of hepatic and intestinal capillariasis in middle aged alcoholic man.

CASE REPORT

A 45 male patient occupation by farmer, chronic alcoholic came with chief complaints of fever since 1 month, abdominal discomfort and yellowish discoloration of eyes since 20 days On clinical examination showed icterus and tender hepatomegaly.

Hemogram showed wbc count of 22,000/cu mm, raised bilirubin with direct more than indirect Usg abdomen showed hepatomegaly with multiple liver abscesses with largest size of 8.2 cm in the right lobe of liver which was liquified . CECT abdomen showing the same… shown in fig 1 Liver abscess aspiration was send for analysis microscopic examination showed long slender nematode of about 33 mm in length and 0.1 mm in width which was identified as capillaria hepatica …shown in fig 2 Microscopic examination of the stool sample revealed the presence of bile-stained, peanut shaped ova, sized approximately 45 × 21 µm with at mucous plugs at both poles . They were identified as ova of Capillaria shown in fig 3 .

Patient was treated with albendazole for 21 days and broad spectrum antibiotics , review stool sample showed reduction number of ova and adult worms. After giving albendazole and antibiotic coverage patient started clinically improving after 3 days and patient is on follow up.

FIGURES

Figure 1: CECT abdomen showing multiple liver abcesses with largest size of 8.2 cm in the right lobe of liver which was liquefied

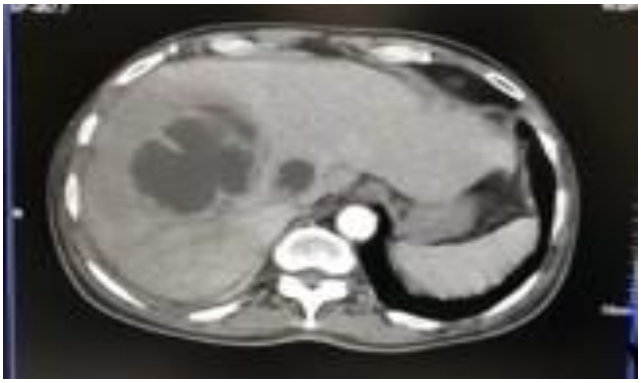

Figure 2: Microscopic examination of liver aspirate showed long slender nematode of about 33mm in length and 0.1 mm in width which was identified as capillaria hepatica

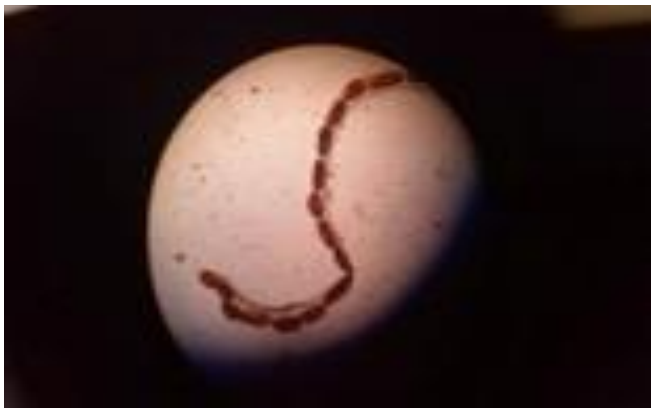

Figure 3: Microscopic examination of the stool sample revealed the presence of bile-stained, peanut shaped ova, sized approximately 45 × 21 µm with at mucous plugs at both poles suggested capillaria

DISCUSSION

This case highlights challenges diagnosing hepatic capillariasis which mirrors common bacterial abscesses on initial clinical and radiologic grounds before proving refractory to conventional drainage approaches and antibiotic therapy. Obtaining intra-lesional histopathological sampling enabled microscopic identification of characteristic Capillaria eggs and adult worms to cement diagnosis. However, the markedly elevated inflammatory markers coupled with cystic liver lesions on CT reason ably supported initial pyogenic abscess considerations warranting broad initial antibiotic coverage. Only deeper drainage specimen microscopy provided diagnosis-defining visualization of parasites in this instance. However, previous case reports have noted presence of Capillaria eggs or worms on preliminary cytology smears or wall biopsies [7]. Our report reinforces pursuing exhaustive histological staining and microscopic diligence when intra-hepatic abscess etiologies remain elusive. It further highlights how Capillaria parasites transverse intestinal mucosa reaching the liver against remarkable immunologic tolerance [8]. Host factors governing susceptibility and tolerance to parasitic colonization require further elucidation. From a clinical perspective, travel history inquiries probing dietary exposures could raise suspicion for unusual transmissible etiologies like Capillariasis. However autochthonous transmission, while less likely, may still occur[9]. There fore inclusion of special staining in histological analysis of liver lesions can prove critical to revealing rare occult parasitic diseases with in endemic regions.

Early administration of albendazole produced prompt resolution of this patient's cystic liver lesions and biliary tree inflammation. However, diffuse biliary tree dilatation noted on follow-up warrants monitoring for stricturing complications in coming years. Surgical consultation guided optimal anti-helminthic therapy duration and need for potential biliary drainage procedures if indicated by post-infectious stricturing. Multidisciplinary collaboration enabled integrated parasitic disease recognition and management, over coming diagnostic hurdles by blending clinical acumen with pathological expertise. Lastly, perspectives from veterinary medicine facilitated zoonotic disease vigilance and insight into parasite behavior that informed the prolonged albendazole regimen given the risks of tenacious helminths. Although human Capillaria hepatica infection remains rare, raising awareness of its existence can accelerate diagnosis and minimize individual morbidity and infectious sources driving outbreaks.

CONCLUSION

Intestinal capillariasis is a rare presentation in humans , but capillaria hepatica is still rare manifestation . Very few cases were reported from world literature (100 upto 2012).

Combined intestinal and hepatic capilariasis in adults with cystic hepatic lesions may be unique presentation of this case .Hence we are interested to report this case.

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