Pinworm Isolation in Ascitic Fluid

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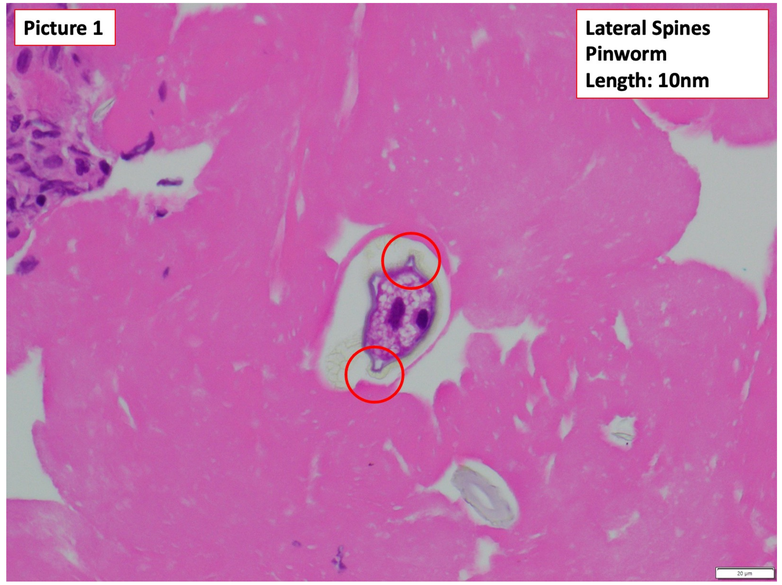
Introduction

- Extra-intestinal pinworm infections are rare with sites including liver, kidney, spleen, and lung. In females, urinary tract infections and invasion of the genital tract with pinworms have been described[1].
- There have been some case reports describing parasitic infections presenting as eosinophilic ascites in otherwise healthy patients.
- We present the first case in which a cirrhotic patient presented with portosystemic encephalopathy (PSE) who was found to have a pinworm isolated in ascites.

Case Report

- A 67-year-old female patient with decompensated cirrhosis from non-alcoholic steatohepatitis that was complicated by ascites, and esophageal varices presented to an outside hospital (OSH) with altered mental status from portosystemic encephalopathy (PSE) for one day.
- Imaging was unrevealing, only noting increased stool burden.
- Labs at the OSH revealed an AKI, elevated ammonia level (183), and urinalysis with signs of infection.



Red Blood Cells	1,662/mm^3
Nucleated	287/mm^3
Neutrophils	4%
Lymphocytes	54%
Macrophage	42%
Glucose	143 mg/dL
Albumin	1.2 g/dL
Serum eosinophils	0.1 K/CMM

Image 1. Cell block section with pinworm.
Table 1. Ascitic fluid studies and serum eosinophils.

Case Report (continued)

- The patient was transferred to our hospital due to transplant status.
- Mentation improved after lactulose enemas.
- Of note, urine culture was negative, and she denied having urinary symptoms.
- A diagnostic paracentesis was performed the day prior to discharge with fluid analysis negative for SBP. Fluid studies are shown in **Table 1**.
- Cytopathology resulted after discharge of the patient and showed a pinworm in a cell block section, characterized by lateral spines, **Picture 1**.
- Patient was prescribed albendazole by transplant infectious disease specialist for a duration of 4 weeks.
- A diagnostic paracentesis after completion of treatment confirmed eradication of the pinworm infection.

Discussion

- Peritoneal cavity pinworm contamination has been noted presenting as chronic pelvic peritonitis due to enterobius granulomas[2], however pinworm isolation in ascites has not been described.
- Eosinophilic ascites has been reported in association with Strongyloides infection however the parasite was not found in fluid analysis[3].
- Interestingly, our patient did not have elevated eosinophils in serum or ascites, and no inflammation was noted on imaging.
- The source in this case is unknown however could include translocation from the gut or migration from the genitourinary area.
- Prior to discharge, the cause of the HE was thought to have been from inadequate doses of lactulose and fluid retention, however pinworm infection should be considered.

References

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