

JCHS-IQ-01-2024

Worm Passing from the Mouth

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Case Presentation

An 18-year-old Rohingya woman, who was pregnant at 21 weeks, was admitted with a complaint of epigastric pain and nausea for two days. She is a Burmese refugee who has been in Malaysia for two years. She had previously eaten undercooked meat. Systematic examination was unremarkable. She was given intravenous fluids and symptomatic treatment, which included antacids and anti-emetics. She had one bout of vomiting in the ward and expelled a roundworm from her mouth. The worm was approximately 20 cm in length, and 5 mm in diameter, and it appeared elongated, cylindrical, and tapered at both ends (Figure 1). The worm was identified as an adult female *Ascaris lumbricoides*. Microscopic examination of the stool sample revealed the presence of fertilized eggs that are oval-shaped and surrounded by thick mammillated outer shell (Figure 2). She did not have intestinal obstruction, biliary ascariasis, or peripheral eosinophilia. She was given a single dose of albendazole 400 mg and was advised on proper food hygiene and sanitation.



Figure 1 Gross appearance of an adult female *Ascaris lumbricoides* worm appears elongated, cylindrical, and tapered at both ends

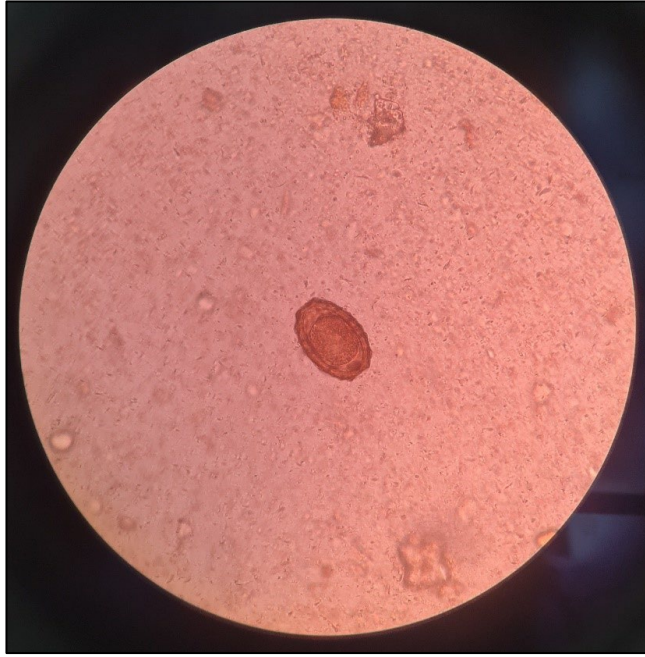


Figure 2 Microscopic examination of the stool sample showed a fertilized egg of *Ascaris lumbricoides* that is oval-shaped and surrounded by a thick shell (mammilated/corticated)

Question:

Based on the figures given, what is the most likely diagnosis? What is the recommended treatment for this infection?

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ANSWER TO JCHS-IQ-01-2024

Ascariasis

Discussion

Ascariasis is common in developing countries with a tropical climate where sanitation and hygiene are poor. *Ascaris* can form a worm bolus, which can cause small intestinal obstruction or perforation. *Ascaris* can enter the biliary tract and pancreas via the ampulla of Vater, resulting in acute cholangitis, cholecystitis, pancreatitis, and liver abscess [1]. Intestinal helminth infections were found to be prevalent among pregnant women according to a study done in Kenya. The study found that pregnant women aged below 29 years and those with primary level of education were at a higher risk of infection compared to those aged ≥ 29 years with secondary level of education [2]. Previous research has suggested that helminth infection during pregnancy can result in maternal anemia and poor birth outcomes, necessitating antihelminthic treatment (albendazole, mebendazole, and ivermectin). Initial studies established the safety of common helminth treatments. These studies have generally found that treatment does not result in an increased prevalence of birth defects [3]. With increased international travel and migration of vulnerable populations, clinicians will encounter some of the nematode infections in pregnant patients. Clinicians need to be more aware of parasitic infections in the immigrant and refugee populations.

Learning Points

- *Ascaris lumbricoides* can cause intestinal obstruction or perforation by forming a worm bolus. It can also cause severe complications i.e. acute cholangitis, cholecystitis, pancreatitis, and liver abscesses.
- Healthcare providers should be aware of the increased risk of parasitic infections in immigrant and refugee populations due to global travel and migration.

Conflict of Interest

Authors declare none.

Acknowledgement

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REFERENCES

1. Khuroo MS, Zargar SA, Mahajan R. Hepatobiliary and pancreatic ascariasis in India. *Lancet*. 1990;335(8704):1503-6.
2. Wekesa AW, Mulambalah CS, Muleke CI, Odhiambo R. Intestinal helminth infections in pregnant women attending antenatal clinic at Kitale district hospital, Kenya. *J Parasitol Res*. 2014;2014:823923.
3. Mpairwe H, Tweyongyere R, Elliott A. Pregnancy and helminth infections. *Parasite Immunol*. 2014;36(8):328-337.

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