

Pregnancy Complicated by Acute Pancreatitis with Ascariasis

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ABSTRACT

Ascariasis lumbricoides infections are common in tropical and sub-tropical countries. As it is one of the common causes for common bile duct obstruction. But in pregnancy is a rare entity. It may present with complications like acute pancreatitis. Here we present a case of 24 year female gravida 2 para 1 at 34 weeks of pregnancy presented with chief complain of pain over epigastric region radiating to back and associated with two episodes of vomiting, non bilious, not mixed with blood. Ultrasonography showed long tubular hyperechoic structure in gallbladder lumen most likely ascariasis and then she was diagnosed as a case of acute pancreatitis with alive ascariasis.

KEY WORDS

Acute pancreatitis, Ascariasis lumbricoides, Pregnancy, Ultrasonography

INTRODUCTION

Ascariasis lumbricoides is widely distributed in tropical and subtropical region where there is insufficient sanitation, hygiene or education.¹ Ascariasis is the most common infestation in humans. It's worldwide prevalence is estimated as 25% (> 1 billion people). One of the most common ectopic sites of ascariasis is the hepatobiliary tree because of its easy accessibility.² Acute pancreatitis in pregnancy is rare and occurs in approximately 1 in 1000 to 3 in 10,000 characterized as acute onset, many complications and high mortality. The commonest reason of pancreatitis are biliary disease and congenital or acquired hypertriglyceridemia which can occur during any trimester but half of them occurs during third trimester.³ Women are more likely to develop ascariasis pancreatitis because progesterone plays a role in inducing Oddi's sphincter to relax allowing the nematode to get access to the biliary duct.^{1,4} Ultrasonography is quick, safe and noninvasive tool to diagnose ascariasis.⁵

CASE REPORT

Twenty-four year female gravida 2 para 1 at 34 weeks of gestation presented with complain of amenorrhoea for eight months and pain over epigastric region for one day, sudden in onset, colicky in nature, very severe in intensity, pain was radiating to back without any aggravating or relieving factors. It was associated with 2 episodes of vomiting. Vomitus was non bilious, non bloody and contained food particles mostly. She also gave history of two episodes of loose stool. On examination, tenderness and guarding was present in the epigastric region. She was then admitted and kept nil per oral under intravenous fluids, antispasmodic and proton-pump inhibitors. Her vitals parameters were normal with normal regular fetal heart sound. Investigations showed raised total leucocytes count (14,500/mm³), with neutrophilic predominance of 75% and Lymphocytes 24%. Serum amylase was 3180 U/L and lipase 4604 U/L. Other blood and urine investigations reports were within normal limit. Surgical consultation was done and intravenous antibiotics was added. After 24 hours

of conservative management repeat serum amylase and lipase decreased to 428 U/L and 999 U/L. Ultrasonography showed a long tubular hyperechoic structure in the gallbladder lumen possibly of parasite with differential diagnosis of ascariasis (fig. 1).



Figure 1. Ultrasonography picture showing ascariasis in gallbladder

After the diagnosis of acute pancreatitis due to alive ascariasis lumbricoides, she was then treated with single dose of tablet Albendazole 400 mg. Her symptoms resolved after 72 hours and was discharged on oral medications; Cefixime 200 mg twice daily for five days, antispasmodic and proton-pump inhibitors and with an advice to follow up after one week. Ultrasonography was repeated after two weeks and there was no evidence of ascariasis. Also she had no any fresh symptoms as such pain abdomen and vomiting.

DISCUSSION

Ascariasis is the most common parasitic infestation that is known to infect more than a billion people worldwide.⁴ Population living in tropical and developing countries associated with poor personal hygiene and poor sanitation and in places where human feces are used as fertilizers are at high risk of ascariasis. Ascariasis infection occurs by feco-oral route when embryonated eggs are ingested. The eggs hatch and release larvae into the intestine. The larvae penetrate the gut then move through the blood stream or lymphatic circulation to the liver and the lungs. After maturation in the lungs, the parasite ascends to the respiratory tract and are swallowed back into the stomach and intestine. The adult parasite resides in the lumen of the small intestine. The worms can cause mechanical obstruction or can migrate to unusual site such as the biliary tree, the pancreatic duct and the appendix in the gastrointestinal tract.²

Ascaris lumbricoides causes pancreatitis due to obstruction of papilla of Vater, invasion of common bile duct or invasion of pancreatic duct.⁴ In some cases this worm can produce hepatic abscess and present with acute abdomen. Diagnosis of this disease can be easily made by ultrasound when linear echogenic foci are seen moving within the biliary system. Ultrasound is the method of choice for suspected biliary ascariasis, as it is convenient non-invasive technique to monitor the status of worms.² Gupta et al. conducted a case report series in 3 cases, all 3 cases were managed conservatively.¹ In first case, exploratory laparotomy was performed as patient failed to respond to conservative treatment. Intraoperative diagnosis was acute pancreatitis due to ascariasis. In second case, Ryles tube was kept and worms were drained followed by anti-helminthic therapy. Raina et al. reported a case of pregnancy with pancreatitis with ascariasis in which endoscopic retrograde cholangiopancreatography (ERCP) was done with confirmation of ascariasis in pancreatic duct but failed to be remove it.⁴ She was treated with pyrantel pamoate 750 mg once daily for seven days and on repeat magnetic resonance cholangiopancreatography (MRCP) no worms noted.

Conservative management of partial worm obstruction is advocated in many studies. Anti-helminthic therapy with piperazine is preferred, though mebendazole or albendazole is effective in eradicating ascariasis in 84% to 100% of cases. Feeding should be restarted when abdominal tenderness has disappeared, any ileus has resolved with normal urinary output. Prognosis of ascariasis is excellent if the patient is diagnosed and treated early.⁴ There are high chances for worms to come out with conservative management only. In our case, conservative management was done. She received single dose of albendazole 400 mg orally, and on follow up ultrasonography no worms detected. No recurrence of symptoms noted.

As ascariasis is common in developing countries like ours, early detection of ascariasis in pregnancy can prevent complications like acute pancreatitis and conservative management with both maternal and fetal monitoring is recommended for better outcome. Ultrasonography is the best non invasive procedure to confirm the diagnosis. So, wait and watch protocol should be followed as there are high chances that worms comes out with conservative management only. Surgical intervention should be limited for serious and complicated indication in a multidisciplinary centre. Deworming with single dose albendazole (400 mg) or mebendazole (500 mg) should be provided in second trimester as a public health intervention and prevention from worm infestations.

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