

Strongyloides Stercoralis Infection in Patient with Pseudocyst of Pancreas

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Abstract: Strongyloidosis, an infection is caused by *Strongyloides stercoralis*, is widely spread in tropical and sub-tropical regions. In most of the patient infected with *S.stercoralis* infection are asymptomatic. We present rare case of *Strongyloides stercoralis* infection complicating pseudocyst of pancreas in immunocompetent adult male.

Keywords: *strongyloides stercoralis*, Pseudocyst of Pancreas, helminth

1. INTRODUCTION

Strongyloidosis, an infection is caused by *Strongyloides stercoralis*, is widely spread in tropical and sub-tropical regions.¹ Exact prevalence of strongyloidosis is not known.² It has complex life cycle. The adult worm can reproduce in either soil or human intestine. Infective filariform larvae penetrate the skin and reach to lungs then they enter thorough capillaries in to pulmonary alveoli then the larvae are eliminated to larynx and swallowed, migrate to small intestine, there they lay eggs that hatch rhabditiform larvae and excrete in to stool. These larvae may penetrate mucosa leading to autoinfection.³ In most of the patient infected with *S.stercoralis* infection are asymptomatic.⁴ The most common symptoms are abdominal pain, diarrhoea, vomiting and cough.² However, severe form such as hyperinfection and disseminated infection are seen in immunosuppressed patients.³ Here in, we present a case of strongyloides stercoralis infection associated with pseudocyst of pancreas.

2. CASE REPORT

A 45 year old man presented with abdominal pain and fever for 15 days duration. The patient was apparently normal 15 days back, fever was high grade, intermittent, undocumented associated with chills, rigor and one spikes per at night. He described the pain as sudden, epigastric, radiating to back, was associated with abdominal distention, nausea, vomiting, fever, loss of appetite, shortness of breath, jaundice, high colored urine and increased frequency of stool (6 episodes/ day). There was no history of hypertension and diabetes mellitus. He was known case of chronic drinker (1 bottle/day). On physical examination temperature was 100⁰F, pulse rate 148/min, blood pressure -120/70 mm Hg with respiratory rate of 34/min. The patient was stable, abdomen was distended, tenderness on epigastric region and bowel sounds were normal on auscultation. Rest of the systemic examination was within normal limits.

Laboratory examination at admission showed increased total leukocyte count (24,000 mm³), neutrophil count (85%), urea (140 mg/dl) and creatinine (3.30 mg/dl) and normocytic normochromic anemia (Hb-6.6 g/dl). Liver function test showed total bilirubin (1.92 mg/dl), unconjugated bilirubin (0.42 mg/dl), aspartate aminotransferase (144 U/L), alanine aminotransferase (75 U/L) and alkaline phosphatase (87 U/L). The platelets count, serum albumin, sodium, potassium, calcium and phosphorous were within normal range.

Ultrasound of the abdomen revealed hepatosplenomegaly and small amount of ascites. The CT scan of the abdomen showed a small cyst measuring 8 x 6 mm in seen in body of pancreas with

multiloculated fluid collection with wall enhancement is seen in left lumbar region. Intraductal calculus 5 x 4 mm in size present in head of pancreas with small foci of calcification. Small amount of free fluid seen in peritoneal cavity. Simultaneously, stool sample was sent for bacteriological and parasitological examination. On wet mount microscopy of stool revealed motile larvae of *Strongyloides stercoralis*, (Figure) however, stool culture was negative. The patient was treated with Ivermectin 200µg/kg body weight for 14 days. After two weeks stool sample was again sent for parasitological examination and it was negative for *Strongyloides stercoralis*.



Figure -*Strongyloides stercoralis* larvae in stool sample

3. DISCUSSION

Strongyloides stercoralis is a helminth, distributed worldwide infecting 100 million population each year, mostly found in tropical and sub-tropical regions.⁴ This infection is endemic in Southeast Asia, Latin America and Sub Saharan African regions.⁵ However; exact prevalence is not known because most of the patients are asymptomatic. Clinical features such as Fever, nausea, vomiting, abdominal pain, diarrhea, cough, tracheal irritation and skin rashes are seen in some people. Severe condition such as hyperinfection and disseminated infection is seen in immunosuppressed patients. Our case is unique in that *strongyloides stercoralis* infection complicating pseudo cyst of pancreas and the patient was not immunosuppressive. Radiological and parasitological (stool microscopy) evaluation in our case helped in identification of *strongyloides stercoralis* infection. Currently, Albendazole, Ivermectin and Mebendazole is approved for the treatment of *Strongyloides* infection. Ideally, better hygienic and sanitary conditions are targeted to control *strongyloides* infection.

In conclusion, we present rare case of *Strongyloides stercoralis* infection complicating pseudocyst of pancreas in immunocompetent adult male.

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