Acute Pancreatitis-Rare Complication of *Falciparum* Malaria

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**Abstract**

A 26-yr old army man of commandant rank posted in forest belt of district Mirzapur Uttarpradesh, presented to the medicine emergency department with a 4-day history of high grade fever which was associated with chills and rigor, vomiting and generalized abdominal pain. Peripheral blood smear stained with leishman demonstrated ring-form trophozoites of *P. falciparum* with high parasitaemia (62%) with rapid antigen test for *P. falciparum* was also positive. Chest X-ray was normal. Non contrast computed tomography (CT) scan of the abdomen showing a bulky pancreas with peripancreatic fat stranding suggestive of acute pancreatitis. A diagnosis of severe falciparum malaria with acute pancreatitis was made on basis of investigation. Treatment in form of intravenous quinine 1000 mg as loading dose in 10% dextrose solution followed by 500 mg in same solution and was monitored for hypoglycaemia. Oral quinine tab was started 8th day up to 15th day. The patient was discharged on 18th day and his condition was good on further follow up.

**Keywords**: Acute pancreatitis • Falciparum malaria • Pain abdomen • Fever • Anopheles

**Introduction**

Falciparum malaria is a very common disorder that is prevalent in the tropics and associated with many complications. Falciparum malaria a protozoan disease is caused by *Plasmodium falciparum*, transmitted by the bite of infected Anopheles mosquitoes. Acute pancreatitis a rare complication of falciparum malaria which is well documented. It is rare complication because despite having high parasitaemia there is no any other system involvement. A case report of a 26-yr old army man infected with falciparum malaria with high parasitaemia and acute pancreatitis as a sole presentation was presented here. Only few case reports are available.

**Case Study**

A 26-yr old army man of commandant rank posted in forest belt of Mirzapur district, Uttarpradesh, presented to the medicine emergency department with a 4-day history of high grade fever which was associated with chills and rigor, vomiting and generalized abdominal pain. There was no significant past medical history of lipid disorders, no history of biliary tract disease, no steroids and painkillers intake. There was no history of alcohol intake or any other substance abuse. At the time of presentation on clinical examination, he was febrile (102.2°F) with mild jaundice. His temperature fluctuates over next 2 days, abdominal pain increases and he becomes drowsy. Four days after admission his condition improved. Blood pressure was normal. Systemic examinations reveals epigastric tenderness with mild generalised abdominal distension with normal bowel sounds. Systemic examinations of other system were within normal limits. Laboratory examination revealed haemoglobin 9.4 g/dL with total leucocyte count 6400/mm³ (with granulocytes 65.6%), platelet count 90,000 MCV 84.5 fl, MCH 30.2 pg and haematocrit 23.1%. Serum bilirubin was 4.2 mg/dL, aspartate aminotransferase 402 IU/L, alanine aminotransferase 202 IU/L, alkaline phosphatase 82 IU/L and serum albumin 2.8 g/dL with total protein of 6 mg/dL. His serum amylase was 502 IU/L and serum lipase 2248 IU/L. His kidney function tests were normal. Peripheral blood smear stained with leishman demonstrated ring-form trophozoites of *P. falciparum* with high parasitaemia (62%) with rapid antigen test for *P. falciparum* was also positive. Chest X-ray was normal. Contrast enhanced computed tomography (CECT) scan of the abdomen showing a bulky pancreas with peri-pancreatic fat stranding suggestive of acute pancreatitis (Figure 1). A diagnosis of severe falciparum malaria with acute pancreatitis was made on basis of investigation .Treatment in form of intravenous quinine 1000 mg as loading dose in 10% dextrose solution followed by 500 mg in same solution and was monitored for hypoglycaemia.

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Discussion

Jaundice is probably because of oedema of the head of the pancreas which compressed the intrapancreatic portion of the common bile duct. No correlation between the infestation index and the occurrence of pancreatitis has been established. Encouraging results with successful outcome were seen in patients with acute pancreatitis in previous study and in present patient leads to early diagnosis of pancreatitis in *P. falciparum* positive cases and management in early stage so as to prevent the life threatening complication of acute pancreatitis. Incidence of Acute pancreatitis is much higher than that being reported because of failure to report the patient presenting with acute abdomen in malaria patient. In tropical countries it is of utmost importance to look for signs and symptoms of acute pancreatitis in a patient presenting with pain abdomen in *P. falciparum* positive cases.

Conclusion

So a conclusion is drawn from this case and earlier cases that as *falciparum* malaria is common in tropical countries and it can present as pain abdomen with acute pancreatitis so routine serology testing is done to rule out the diagnosis to prevent dreaded complications and to decrease the mortality and mortality

References