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Acute on Chronic Pancreatitis Masking Falciparum Malaria: A Case Report

Sukhbir Singh Badhal

Clinical Biochemistry Division, Department of Laboratory Medicine

All India Institute of Medical Sciences, New Delhi 110029, INDIA

E-mail: s.badhal@rediffmail.com

M. Irshad

Clinical Biochemistry Division, Department of Laboratory Medicine

All India Institute of Medical Sciences, New Delhi 110029, INDIA

E-mail: drirshad54@yahoo.com

Suman Badhal

Department of Physical Medicine & Rehabilitation

All India Institute of Medical Sciences, New Delhi 110029, INDIA

E-mail: drsuman_badhal@yahoo.com

Kapil Yadav

Department of Centre of Community Medicine

All India Institute of Medical Sciences, New Delhi 110029, INDIA

E-mail: drkapilyadav@yahoo.com

Abstract

Malaria is one of the leading causes of morbidity and mortality reported worldwide. Malaria caused by P. Falciparum is a multisystem disorder and may have diversity of clinical presentations. We are presenting a case report of patients of Falciparum Malaria masking acute on chronic pancreatitis. We suggest that Falciparum Malaria should be included in differential diagnosis of acute pancreatitis presenting with fever especially in endemic countries.

Keywords: Falciparum, Malaria, Pancreatitis, Acute

1. Introduction

Falciparum malaria is a common disorder in the tropics associated with myriad complications that can often be life-threatening and fatal. Malaria is one of the leading causes of morbidity and mortality reported worldwide. Malaria caused by P.Falciparum is a multisystem disorder and may have diversity of clinical presentations. So it is crucial for a treating physician to reach the correct diagnosis and management to reduce the morbidity and mortality in malaria endemic zones.

2. Case presentation

We report here a case of 33 year old male presenting as atypical case of Falciparum malaria, mimiciking acute on chronic pancreatitis to the Emergency of AIIMS, New Delhi, India. The patient was a chronic alcoholic and diagnosed as a case of chronic pancreatitis. He was admitted to a private nursing home with fever and pain in abdomen for the last 3 days and the ultrasound of abdomen showed chronic calcific pancreatitis with no free fluid, undergone some

instrumentation, most likely ERCP. Subsequently, the patient's condition deteriorated and he was referred to emergency of AIIMS.

On examination, patient had altered consciousness, high grade fever with chills, pallor, pedal edema and facial puffiness. In addition, his pulse was 100/min., BP 90/70 mm of mercury and bilateral basal crepts in chest. On abdominal examination, hardboard rigidity with decreased bowel sound was present. Arterial blood gas analysis showed severe metabolic acidosis and x-ray was normal with no air under diaphragm. It was diagnosed a case of severe acute on chronic pancreatitis (post-ERCP induced) with DIC, Sepsis and ARF. Patient was admitted in Gastroenterology unit. Blood investigations were: Hemoglobin: 3.2 g/dl, TLC: 17,700/cumm., platelet: 30,000/cumm., PT: 24 sec (control 13 sec), blood urea: 141 mg/dl and Serum creatinine: 4.0 mg/dl. Management of patient included IV fluids, dopamine 20 microgram/kg/min. Antibiotic used were piperacillin, tazatobactum, imipenem but patient's condition kept on deteriorating and he was intubated electively to maintain respiratory functions and put on ventilator on day 4. However, this patient failed to respond to above treatment and on day 8, a peripheral smear was sent to rule out malaria. The results were positive for falciparum malaria with parasite count of 1920 / µl. Now on 9th day of presenting to emergency, patient was put on antimalarials, initially artesunate and doxycycline with addition of quinine two days latter.

Although the parasite count declined (<200/µl), patients' peripheral smear continually showed presence of falciparum malaria. On next morning, patient had bleeding per rectum from hemorrhoids followed by upper GI bleed. Platelet count was 13,000/cumm. and PT was 22.5 sec. (11 sec.), 3 units platelet, 2 unit FFP and 2 units RBC was transfused to the patient. Patient developed bilateral extensive pneumonia with ARDS on ventilation support on day 14 and his condition deteriorated rapidly with severe upper GI, per rectum and tracheal bleeding. Patient finally succumbed to his illness on morning of day 15.

3. Discussion

Typically, malaria presents with fever and shivering, poor general condition, diarrhea, nausea and vomiting also occur frequently. Malignant malaria can results in alteration of consciousness, convulsions and paralysis leading to complications like hypotension, kidney failure, DIC, infectious jaundice, shock and coma. Suspected cases are detected by rapid diagnostic test and confirmed by microscopic detection of parasite in blood on peripheral smear.

Although abdominal pain is a frequent symptom in malaria, in this patient, the persistent and worsening of abdominal pain was related to severe pancreatitis. The causes of abdominal pain in malaria are protean and include hepatitis/hepatomegaly (Beg et al, 2008) acalculous cholecystitis (Anthonie-Milhomme et al, 2007), acute surgical abdomen (Gopisetty et al, 2007) and splenic rupture (Jimenez et al, 2007). Apart from typical presentations, lot of patients were seen with unusual presentation with symptoms suggestive of upper and lower respiratory tract infections including acute lung injury, meningitis, acute hepatitis including fulminant hepatic failure and acute gastroenteritis (Ahsan & Rab, 1993; Bhalli & Samiullah, 2001; Kyriacou et al, 1996 & Seshadri et al, 2008). Patient with altered consciousness in malaria endemic region should be investigated for severe malaria. This case is an atypical presentation of falciparum malaria, which was misdiagnosed and subsequently led to death of patient. Patient was initially diagnosed and managed as a case of chronic pancreatitis at the private nursing home. At AIIMS, on the basis of clinical and laboratory findings, he was managed as a case of acute on chronic pancreatitis post-ERCP with DIC, ARF and Sepsis although no evidence was present to support the diagnosis of sepsis. Patient showed no improvement despite supportive hemodynamic management and broad-spectrum antibiotics. Only on day 9th patient was put on antimalarials subsequent to a peripheral smear that showed high level of parasitemia. But patient died due to complications

4. Conclusion

In view of various presentations of falciparum malaria should be considered as a possibility in all febrile patients even with various unusual presentations. This case reiterates the need to carry out peripheral smear as mandatory and first line investigation in any case with symptoms of fever with chills, especially in endemic country like India.

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