Correspondence

Acute pancreatitis and ARDS complicating *Plasmodium vivax* malaria

Sir,

We read with interest the case report on acute pancreatitis due to vivax malaria[1]. We have few observations on the same. The authors reported that similar cases have not been reported. In fact, multiple case reports have implicated *Plasmodium falciparum* as a cause of acute pancreatitis. Also, a previous report from India had first implicated *P. vivax* as a cause of acute pancreatitis in a young male[2]. Even in that report, the patient had died of the severe nature of infection. Also, some authors have indicated the need to exclude *P. falciparum* infection (mixed infection) by the use of PCR-based assay, although the assay is not easily available for routine clinical use[3]. We are not sure if there was a need to start Imipenem and Cilastatin so early in the course as early administration of antibiotics has no established role in the management of acute pancreatitis. Also, it cannot be entirely established whether the cause of acute respiratory distress syndrome (ARDS) in the present report was indeed due to vivax-related mechanisms or secondary to acute pancreatitis-related acute lung injury. We disagree with the assertion that elevated liver enzymes represent persistent organ failure. Only respiratory, renal, and hemodynamic dysfunction are considered in the definition of organ failure in relation to acute pancreatitis[4].

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Authors' Reply

We admire the opinion of authors of correspondence about our case report. Though few cases had been reported in the past and in the recent investigations of acute pancreatitis in *P. vivax* malaria, conventional belief of clinicians regarding such approach is not yet been developed[1].

Certainly mixed infections with *P. falciparum* need to be excluded by the use of PCR-based assay before reaching any conclusion about the causal series of events and if possible a post-mortem examination along with pathological study of target organs to confirm the aetiology and pathologic mechanisms of organ dysfunction would be crucial, which unfortunately is not obtained in every case. Aggressive IV fluid replacement is of critical importance in these patients but antibiotic prophylaxis in prevention of sterile acute necrotizing pancreatitis from becoming infected has not proven effective by various international studies. But taking into consideration the critical condition of the patient, we introduced antibiotics but that certainly is not recommended[2].

This case is still unique as *P. vivax* leading to both ARDS and acute pancreatitis is revealing the grim nature of this so called "benign" infection in the past. In this patient during her course of illness, besides respiratory compromises, hemodynamic dysfunction as evidenced by hypotension was developed along with liver dysfunction which is suggestive of overall multi-organ dysfunction caused by harbouring of vivax infection, not just as a consequence of acute pancreatitis-related organ dysfunction.

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