Plasmodium vivax: “A Forgotten Cause of Fever”

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Clinical Image

A 25-year-old man admitted for two week-history of cyclic fever, night sweats, and muscle ache. He served in the army and returned from Afghanistan six months ago. He received doxycycline prophylaxis. He did not have cerebral malaria, acute kidney injury, hypotension, hypoglycemia, disseminated intravascular coagulopathy, hypercalcemia, academia, pulmonary edema, convulsions, or severe anemia. Blood tests showed hyperbilirubinemia and thrombocytopenia. Peripheral smears depicted few Plasmodium vivax. G6PD levels were normal. He was treated with Atovaquone/Proguanil and doxycycline. The patient had most likely Plasmodium vivax hypnozoite liver stage that reactivated six months after his return to the United States and Primaquine 30 mg 1 tablet daily was given for 14 days to eradicate the dormant phase. The patient’s clinical manifestations and laboratory abnormalities resolved in 2 weeks. Malaria should be included in the differential diagnosis of fever for every patient with a travel to endemic areas for up to one year.

Figure 1: A) Peripheral blood smear showing three Plasmodium vivax ring-form trophozoites (Wright-Giemsa stain, original magnification 100x, oil). B) Peripheral blood smear showing a Plasmodium vivax trophozoites (blue arrow) and schizonts (red arrow) (Wright-Giemsa stain, original magnification, 100x, oil). C) Peripheral blood smear on post-treatment day 1. Plasmodium vivax gametocytes are seen. However, no trophozoites or schizonts are identified (Wright-Giemsa stain, original magnification, 100x, oil).