

contacts with clandestine gold panners, mainly Brazilian illegal residents. This population, in which malaria incidence is almost impossible to evaluate, comes from Amapa State, where the incidence of malaria is increasing (5). In 2003, 60.9% of patients with malaria cases at Cayenne Hospital had a Brazilian name compared with 35.4% in 2000 (6). Also, the gold panners diverted the river and built basins where vectors could easily multiply (7).

Initial malaria attacks were treated with chloroquine or quinine. Five patients experienced ≥ 1 relapses (maximum 3 relapses). The relapses were treated with 50-mg daily doses of primaquine for 4 patients and by chloroquine for the fifth patient. Two patients had relapses after receiving primaquine. Primaquine resistance information was not available. However, resistance to primaquine has emerged in *P. vivax* strains (8).

We recommended that pre-impregnated battlefield uniforms be available for French policemen and chemoprophylaxis adherence be reinforced by directly observed intake by supervisory staff. Relapses of *P. vivax* malaria are a major therapeutic problem, particularly after primaquine therapy.

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Plasmodium vivax Malaria Relapses after Primaquine Prophylaxis

To the Editor: Standard treatment of patients with *Plasmodium vivax* malaria includes chloroquine, followed by primaquine terminal prophylaxis. Reports of true primaquine failure and subsequent *P. vivax* relapse are unusual; most suspected cases can be ascribed to poor patient adherence, recrudescence of a chloroquine-resistant strain, or *P. vivax* reinfection. We report a case of *P. vivax* malaria relapse after therapy with quinine, doxycycline, and primaquine, and again after treatment with chloroquine and primaquine. *P. vivax* relapses after primaquine treatment are exceedingly rare in travelers to South America and are a serious therapeutic challenge. Our patient was subsequently treated with weekly, single-dose chloroquine without recurrence of symptoms.

A 77-year-old man had fever and chills 2 weeks after returning from Brazil. These symptoms were accompanied by sweating, fatigue, and a mild, productive cough. Review of systems was notable for dark, concentrated urine and a 10-lb weight loss. The patient's 25-day journey included Salvador, Manaus, and a 2-day stay in the Amazon River basin. He did not take malaria prophylaxis during his trip.

On physical examination, the patient was afebrile with blood pressure of 90/53 mm Hg. Cardiovascular, pulmonary, and abdominal examination results were unremarkable. Several petechiae were noted on both lower extremities. Laboratory tests showed the following: leukocyte count 6,300 cells/ μ L, hemoglobin level 13.7 g/dL, platelet count 40,000 cells/ μ L, serum creatinine level 1.2 mg/dL, serum alanine aminotransferase level 63 IU/L, and serum