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Mixed Plasmodium falciparum & Plasmodium vivax drug resistant malaria: Challenge in diagnosis and therapy

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Abstract

Over decades, Plasmodium has developed against all antimalarial drugs, such as: chloroquine, sulphadoxine-pyrimethamine, quinine, piperaquine and mefloquine. More recently, resistance to arthemisin derivates was reported, resulting failure of arthemisin-based combination therapy (ACT). It is life threatening disease and emerging in many regions, increasing in geographic range.

We report the case of 40-year Asian man, who presented with recurrent malaria infection. He was a soldier who frequently travel to malaria endemic area of Indonesia. Firstly, he was infected by *Plasmodium vivax* in 2007, but clinically manifested 6 years later. The next infection was in 2013 with the same species, got ACT plus primaquine and microscopically cured. He clinically manifested with vivax malaria for 4x, with all manifested in the time he moved out from endemic area. We called it premunition, a host response that protect against high number of parasite and illness without eliminating the infection. In the 4th infection, he manifested with 12-hourly fever, which is unmatched with microscopic finding that show *Plasmodium vivax*. In the 3rd day of evaluation, we found *Plasmodium falciparum* in the blood smear, suggesting mixed infection.

We wondered if there was resistance to- or suboptimal dose of antimalarial drugs that may cause failure of therapy in this patient. In our source-limited

Biography:

Pratista Adi is resident of internal medicine of Brawijaya University, one of the greatest university in Indonesia. He is passionate in infectious disease and public health. He got many experiences in diagnosis and therapy of tropical-infectious disease in source-limited area, where clinical approach was much needed in order to give appropriate treatment. He gives a report for global data and his best as physician with a goal of new treatment.

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