Malaria Prophylaxis During an Ebola Outbreak: A Difficult Choice

To the Editor:

On May 14th I left for Kikwit, Zaire, to assist Zairian physicians organize patient care during the Ebola outbreak.[1] The day before I had taken mefloquine 250 mg as malaria prophylaxis. I had never taken mefloquine before. In Kikwit I started working in the emergency department of the Kikwit General Hospital. I was not afraid to do this work, and I felt comfortable examining and drawing blood from patients with a suspected Ebola infection. Organizing care at the emergency department, however, was stressful because initially there was a lack of protective equipment for staff and for family members. After I arrived in Zaire, although I worked hard and was tired in the evening, I suffered from insomnia. In the evening I used to drink 1 to 2 large bottles of beer (50 cc). In the evening of May 18th, after a day of hard work, perspiring, a lot and not eating (only drinking soft drinks), I started to feel unwell. At the time, a colleague was explaining that the health status of two Italian sisters with Ebola infection, whom I had seen 2 days earlier, had rapidly deteriorated. I felt very weak and had to lie down. Initially I thought I was hypoglycemic, but drinking soft drinks and eating did not result in any improvement. After a cold shower I felt slightly better, but the same feeling of extreme weakness came back. The next day I experienced several other episodes of weakness and anxiety, always related to emotional events such as talking about Ebola deaths or during the time when I made a phone call to my wife. These episodes continued for 3 days and then progressively became less serious. May 21st was the first night I really slept well. When I woke up on May 22nd I felt much better. Because I suspected the feelings I had experienced were caused by the mefloquine, I started using chloroquine and proguanil. The second week of my stay in Kikwit I slept well and had no more episodes of anxiety. On May 29th I returned to Belgium. Because I was curious about whether the feelings I experienced in Kikwit were mefloquine-related, on June 22nd, I took another 250 mg dose of mefloquine. The following week, I did not experience insomnia or any emotional problem.

The reported neuropsychiatric effects of mefloquine include insomnia, nightmares, restlessness, dizziness, convulsions, depression and anxiety, psychotic episodes, and toxic encephalopathy.[2–5] Side effects occur more frequently after mefloquine treatment, but also during chemoprophylaxis. The incidence of serious neuropsychiatric reactions during mefloquine chemoprophylaxis has been estimated to be about 1/13,000, but the incidence of mild reactions remains unknown.[4] In a Swiss malaria prophylaxis study, 31% of neurologic and 61% of the psychiatric adverse events attributable to mefloquine occurred with the first (250 mg) dose.[3]

Persons with a history of a neuropsychiatric illness should certainly not use mefloquine as malaria prophylaxis. I had never experienced any emotional problem in a stressful situation before. Maybe the mefloquine altered my mental equilibrium, making me more susceptible to anxiety during stress.

In order to test possible side effects of mefloquine, starting the drug 10 days before leaving for a malaria-endemic region has been suggested.[5] If this is not possible in a person expected to work under stressful conditions, then, at the very least, the person should be fully informed about potential adverse reactions and possible alternative regimens to take in the event a disabling reaction is experienced.

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