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Letter to the editor

Clinical management of leprosy patients during the yellow fever outbreak in Brazil

Dear Editor:

A recent epidemiological update published by the Pan American Health Organization (PAHO) reported that between July 1, 2017 and March 13, 2018, 920 cases of yellow fever were registered in all Brazilian territory, including 300 deaths. In addition, 769 cases from this same period are still being investigated.[1] Alarmingly, 375 cases and 136 deaths were registered in just four weeks, between February 20 to March 13, 2018.[1] The national health authorities are very concerned due to the substantial increase in the number of cases, especially in large urban areas characterized by high human population density. Minas Gerais, Sao Paulo and Rio de Janeiro, states with the highest income in the country, presented most of the cases and deaths: 415 and 130; 376 and 120; 123 and 49, respectively.[1] A massive campaign of immunization has been conducted, in which health authorities aim to immunize 8.8 million of individuals from 54 risk municipalities in Sao Paulo and 6.9 million of individuals from 15 risk municipalities in Rio de Janeiro.[1] However, there is a list of precautions considering the risk of adverse events of the live attenuated viral strain vaccines, in which immunocompromised individuals, such as people receiving or having received immunomodulator/immunosuppressive treatment are usually excluded from yellow fever vaccionation.[2] It is noteworthy to highlight that leprosy patients under treatment of reactional states are also part of this group, and usually neglected in the advisory campaigns.

Brazil has one of the highest prevalence of leprosy in the world: 22,710 cases according to the last report from World Health Organization (WHO).[2] In addition, in the year of 2016, 25,218 new cases were registered and among them, 18,224 were classified as multibacillary leprosy.[2] It is estimated that around 25% of paucibacillary and 40% of multibacillary patients may develop reactions during the course of leprosy. Studies conducted in Brazil are in accordance with these data, in which most of the patients who develop reactional states were classified as multibacillary and developed reactions during treatment, interestingly, mostly in the first three months of multidrug therapy.[3,4] Leprosy reactions can develop very rapidly leading to an aggressive inflammatory episode that must be identified as soon as possible to avoid neural damage and affect the overall health state of the individual. The treatment of these reactions consists in the use of immunomodulating agents, such as corticosteroids, up to 12 weeks or even more in some cases, and immunossupressants, the most used are tumor necrosis factor alpha (TNF-α) inhibitors, such as thalidomide.[5] Unfortunately, there are no official epidemiological information about the number of individuals under reactional states, as well taking high doses of immunomodulating and immunossupressants in Brazil.

We would like to emphasize the importance of a differentiated clinical approach for patients with leprosy considering the yellow fever outbreak in Brazil. It is of utter importance that this population is very well informed about the serious risks of take the vaccine without a medical consent. Leprosy patients under treatment of reactions who live in high-risk areas for yellow fever must be carefully evaluated by physicians before offering the vaccine. Health professionals may check the general health state and the improvement of reaction symptoms by investigating the aspect of skin lesions, nerve involvement, presence of pain, and fever. The dosage and the time in which the treatment is being administered must be also taken in consideration to decide whether the patient is eligible or not to be vaccinated. In theory, patients without reactions have no restrictions to be immunized, however, they can also develop reactions in any time during or after the treatment. That was one of the reasons why the Department of Health of Sao Paulo State decided not to vaccinate the population in 2016/2017. The possible occurrence of side effects seemed, at that time, higher than the risks of a yellow fever epidemic. However, risks are risks, and patients do not know statistics. This is an attribution to authorities guided by researches and guidelines to direct the population to proper health assistance.

Conflicts of interest

The authors declare no conflicts of interest.

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