Time to be vigilant in contacts of leprosy for possible single-dose rifampicin

To the Editor: The article 'Multibacillary leprosy unmasked by COVID-19 immunisation' by Aponso et al[1] piqued our interest. We admire the authors' ability to successfully manage the case with a prescription modification. Leprosy is a highly common disease in India. There are leprosy cases all around the country, but their distribution is unequal. This article discusses a significant clinical case of leprosy in the Southeast Asian region. In addition to the many points discussed in the article, we would like to highlight a few remarks. In the case report, it appears that the patient acquired type-1 lepra reaction, and slit skin smear was positive from the ear (6+<1%), hands (5+<1%), and feet (5+<1%), and a diffuse, nodular edema was observed over the ears. In an average microscopic field, 5+ denotes 100-1000 bacilli, and 6+ denotes >1000 bacilli/innumerable bacilli.[2] So, there is a risk of transmission to close contacts due to the high bacillary burden.

The patients can harbor a high number of bacilli in their bodies. A person who has been in close proximity to a leprosy sufferer for an extended period of time is called a contact. These people are said to have been exposed to leprosy, but they may or may not have been infected. Prolonged duration is commonly described as having spent at least 3 months in a year in contact with an untreated patient for 20 hours per week; eg, family members, neighbors, friends, school children in the same class, co-workers in the same office, etc.[3] In this scenario, contact tracing of family members and those who have had close contact with the patient is required, and simply treating the patient may not be beneficial to the society.[4,5] After ruling out leprosy and tuberculosis disease and assuming there are no other contraindications, the World Health Organization (WHO) guidelines advocate using single-dose rifampicin (SDR) as a preventive treatment for adults and children (2 years of age and up) in contact with leprosy patients.[6] SDR in leprosy contacts was linked to a 57% reduction in leprosy risk after 2 years and a 30% reduction after 5-6 years, according to the Chemoprophylaxis of Leprosy randomized controlled trial.[7] SDR will only be carried out in case of proper contact management and the index cases' consent to declare their ailment.[6] In leprosy control programs, SDR is a promising and inexpensive preventive strategy for contacts of patients with leprosy.[8-10] The WHO-recommended dosage schedule for SDR is provided in Table I.

Table I. WHO-recommended dosage schedule for SDR

Age/weight	SDR
≥15 y	600 mg/kg
10-14 y	450 mg/kg
6-9 y (weight ≥20 kg)	300 mg/kg
≥2y (weight <20 kg)	10-15 mg/kg

Leprosy is so stigmatized that it is critical to utilize chemoprophylaxis to prevent intimate contacts of leprosy patients from acquiring the disease. In places where leprosy is prevalent, such as those in Southeast Asia, it is preferable to conduct contact monitoring and initiate chemoprophylaxis, while evacuated patients must begin the multi-drug therapy regimen.

Care should be taken when examining patients who have had contact with minors. As leprosy bacilli can be transmitted through sexual contact, a detailed history of sexual contact should be obtained, as well as a partner evaluation, so that early pharmaceutical therapy can be initiated.

Bicytopenia was found in the patient. In such cases, dapsone alone might be replaced. The patient was also treated with clarithromycin, minocycline, and ofloxacin with a gentle taper of prednisolone instead of the WHO-recommended multi-drug therapy regimen for leprosy. However, the dose and duration of medication were not indicated in the article. As per WHO protocol, these medications are only used as an alternative or substitute in cases of drug resistance.[11] The patient could develop recurrent erythema nodosum leprosum in a span of 5-6 years, so back-up drugs like clofazimine, thalidomide, and biological agents have to be kept in mind in case of such multiple episodes.[12] The fact that the participant received the first dosage of a COVID-19 vaccine is reported in the article, but no comment or advice is given regarding the second dose. It is probable that the messenger RNA-based COVID-19 vaccine triggered a T cell-mediated immune response, revealing the leprosy reaction. Because COVID-19 immunizations are given all over the world, diseases that could be revealed should be considered and assessed properly. Yohei Sasakawa,

who is WHO Goodwill Ambassador for Leprosy Elimination, began a public awareness campaign called "Don't Forget Leprosy" in August 2021. The campaign intends to put leprosy in the spotlight throughout the COVID epidemic while also ensuring that the needs of individuals impacted by the disease are met.[13]

Pugazhenthan Thangaraju, MD,[a] *Hemasri Velmurugan, MBBS, MD,*[a] *Krishnapriya Neelambaran, MBBS, MD,*[a] *and Sajitha Venkatesan, MBBS, MD*[b]

From the Department of Pharmacology[a] *and the Department of Microbiology, All India Institute of Medical Sciences (AIIMS), Raipur, Chhattisgarh, India.*[b]

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Correspondence to: Dr. Pugazhenthan Thangaraju, Assistant Professor, Department of Pharmacology, R no 2220, IInd Floor, Medical College Building, All India Institute of Medical Sciences (AIIMS), Raipur-492099, Chhattisgarh, India

E-mail: drpugal23@gmail.com

Conflicts of interest

None disclosed.

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