Content available at: https://www.ipinnovative.com/open-access-journals

IP Indian Journal of Immunology and Respiratory Medicine

Journal homepage: https://www.ijirm.org/

Editorial

Revolutionising TB treatment: Implications of the TRUNCATE-TB Trial on the Indian TB landscape

Gyanshankar Mishra[1,*], **Jasmin Mulani**[2]

[1]*Dept. of Respiratory Medicine, Indira Gandhi Government Medical College, Nagpur, Maharashtra, India*
[2]*Health Family Welfare Training Centre, Nagpur, Maharashtra, India*

ARTICLE INFO

Article history:
Received 23-05-2023
Accepted 05-07-2023
Available online 09-08-2023

In their ground breaking article, Paton et al. shed light on the remarkable potential of the TRUNCATE-TB trial, unveiling a novel strategy that holds great promise in curtailing the treatment duration for drug-sensitive tuberculosis (TB).[1] This visionary approach suggests an eight-week regimen comprising bed aquiline, linezolid, isoniazid (INH), pyrazinamide, and ethambutol, which could conceivably supplant the current standard of care, a protracted six-month chemotherapy course, for patients afflicted with rifampicin-susceptible TB. However, the successful implementation of this therapeutic paradigm necessitates the timely undertaking of baseline drug sensitivity testing, encompassing at least rifampicin, and meticulous post-treatment follow-up extending up to an extensive 96-week period. Regrettably, these requirements pose considerable challenges, particularly when operating within programmatic conditions.

India, a nation grappling with the formidable burden of tuberculosis, has borne witness to a disconcerting loss to follow-up, with over 54,000 TB cases slipping through the grasp of continuous care in 2021.[2] This disheartening scenario resonates with our own research conducted under programmatic conditions, where we meticulously analysed a cohort comprising 2,457 Indian TB patients. Within this cohort, we discovered with deep regret that an unfortunate 4.8% (118 individuals) were lost to follow-up, evincing the profound challenges inherent in maintaining sustained engagement. The multifaceted nature of this unfortunate outcome unveiled a diverse array of contributing factors, including the perils of migration, the vice of alcoholism, the disheartening presence of unwillingness, the burden of side effects, the pursuit of alternative therapies, the complexities of pregnancy, and the demands of occupational responsibilities.[3] Among these factors, we must underscore the considerable challenges faced by patients ensnared in the clutches of alcoholism, for their steadfast adherence to treatment regimens proves excessively elusive, thereby unpropitiously compromising the desired therapeutic outcomes associated with any programmatic TB protocol. Consequently, these disconcerting statistics converge to illuminate the complex challenges that pervade the quest to secure unwavering patient adherence, thereby magnifying the significance of a careful examination of the applicability and feasibility of implementing the TRUNCATE-TB trial regime within specific field settings, especially within the intricate tapestry of a nation like India.

When embarking upon the contemplation of implementing abbreviated anti-TB treatment protocols akin to those meticulously investigated in the revolutionary TRUNCATE-TB trial, it becomes imperative to

* *Corresponding author*.
E-mail address: gpmishra81@gmail.com (G. Mishra).

https://doi.org/10.18231/j.ijirm.2023.010

acknowledge the indomitable significance of diligent post-TB treatment follow-up duly, irrespective of the patient's symptomatic manifestation. Within the expansive realm of the Indian TB population, particularly among individuals harbouring the aforementioned risk factors, with a particular emphasis on the deleterious influence of alcoholism, attaining the recommended two-year post-TB treatment follow-up emerges as an arduous endeavour fraught with multifaceted challenges. In such a compelling context, the adoption of the treatment strategy espoused by the TRUNCATE-TB trial may, albeit unwittingly, engender an escalated risk of fostering resistance to bedaquiline and clofazimine—an apprehension substantiated by the documented instances of acquired resistance encountered within the bedaquiline-linezolid group of participants within the trial. It is of considerable importance that one among these afflicted individuals exhibited a distressing pattern of non-adherence, characterised by the inadvertent omission of multiple consecutive treatment doses during the nascent stages of therapy. [1]

Hence, while the promise inherent in this strategy cannot be understated, evaluating the associated risk of acquiring resistance is imperative, particularly when considering the alarming prevalence of incorrect treatment prescriptions prevalent in India. [4] This regimen's implementation warrants circumspection, especially when optimising therapeutic interventions within specific field settings, particularly in countries like India.

In conclusion, the remarkable work conducted by Paton et al. illuminates an unprecedented treatment strategy for rifampin-susceptible TB, offering a glimmer of hope amidst the arduous battle against this relentless disease. Nevertheless, it is paramount that we remain cognizant of the potential hazards of acquired resistance, especially in regions plagued by challenges related to treatment adherence and prescription accuracy. As we pursue effective therapeutic solutions, a comprehensive and tailored evaluation of this therapeutic regime must be undertaken before embracing it as the preeminent choice in the therapeutic arsenal.

Conflict of Interest

None.

Source of Funding

None.

References

1. Paton NI, Cousins C, Suresh C. Treatment Strategy for Rifampin-Susceptible Tuberculosis. *New Engl J Med*. 2023;388(10):873–7.
2. Central TB Division (Ministry of Health and Family Welfare). India TB Report 2023. Delhi, India: 2023. [Last accessed 2023 on July 1]. Available from: https://tbcindia.gov.in/WriteReadData/l892s/5646719104TB.
3. Mishra GP, Gandhi SA, Ghorpade SV. Study of Various Causes of Treatment Interruption Among Tuberculosis Patients. *Indian J Basic Appl Med Res*. 2016;6(1):382–6.
4. Mishra G, Mulani J. Tuberculosis Prescription Practices In Private And Public Sector In India. *National J Integr Res Med*. 2013;4(2):71–8.

Author biography

Gyanshankar Mishra, Associate Professor
https://orcid.org/0000-0002-0084-839X

Jasmin Mulani, Medical Officer
https://orcid.org/0000-0002-9133-2531

Cite this article: Mishra G, Mulani J. Revolutionising TB treatment: Implications of the TRUNCATE-TB Trial on the Indian TB landscape. *IP Indian J Immunol Respir Med* 2023;8(2):39-40.