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Comment on: "Pulmonary Tuberculosis Seasonality Survey in Fars Province, South of Iran"

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Dear Editor,

We are glad to read the article by Fallahi et al. (1), entitled "Pulmonary Tuberculosis Seasonality Survey in Fars Province, South of Iran", which was published in the last issue of the journal. This well-written article aimed to find the sessional distribution pattern of pulmonary tuberculosis (TB). However, there are some concerns regarding interpretation of results.

The authors reported the TB sessional distribution pattern based on diagnosis time. The timeline of TB infection starts when infectious droplets are inhaled by close contacts to infected patients. Then, these infectious droplets penetrate the well ventilated area of lungs. In this situation, the immune system reaction results in granuloma formation. In most patients, the infectious process stops in this step. However, in some patients, active TB infection will be developed within months (miliary TB) or up to decades later (apical pulmonary TB) (2). After onset of TB symptom in infected patients, pulmonary TB will be diagnosed with significant delay. The median diagnostic delay ranges from 30 to 366.5 days in low- and middle-income countries (3). Moreover, another study reported this time between 11 and 18 weeks. Theoretically, patients who are infected in autumn or winter and develop active pulmonary TB infection are diagnosed approximately 11 and 18 weeks after the first onset of symptoms (spring and summer as mentioned in the article) (4). Hence, diagnosis time is not reliable for estimating the sessional distribution pattern and it is better to consider clinical manifestation initiation time instead of diagnosis time. In addition, the sessional distribution pattern of pulmonary TB can be associated with seasonal-related factors such as indoor activities, seasonal changes in the immunity system, local environmental and climate parameters, and nutritional intake (4). Hence, the mentioned parameters should be evaluated accordingly.

With all the above interpretations, it is recommended to consider such confounding variables in TB sessional distribution pattern studies. Moreover, fine clinical studies should be designed to determine the sessional distribution pattern of pulmonary TB.

Footnotes

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