Delay in diagnosis among pulmonary tuberculosis patients of Rayagada District, Odisha, India

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ARTICLE INFO

Article history:
Received 12 September 2016
Accepted 13 September 2016
Available online xxxx

Keywords:
Delay
Diagnosis
Tuberculosis

ABSTRACT

Background: India accounts for more than one-fifth of the world’s tuberculosis (TB) burden. In spite of efforts taken by the Revised National Tuberculosis Control Programme, tribal areas of the state of Odisha report a high TB incidence over the years. One of the reasons could be delay in reporting to health facilities by the symptomatic patients. During such delays an active case may infect numerous susceptible people thereby contributing to the perpetuation of the infection. The delay in diagnosis may be as long as 2–3 months and even more in hard-to-reach areas.

Objective: The present study aims to find out the extent of delay in diagnosis among pulmonary TB patients of a tribal dominated district that may help in planning effective control strategies for similar situations.

Methods: The information on delay in diagnosis is part of a cross-sectional drug resistance study carried out from June 2011 to May 2013 in 20 Designated Microscopy Centres (DMCs) of Rayagada district of Odisha, India. Out of 634 smear positive pulmonary TB patients enrolled in this study, information on health seeking by the patients were available for 580 patients. The patients included had clinical signs and symptoms suggestive of pulmonary TB (cough, chest pain, and hemoptysis), with/without radiological evidence. Patients found smear positive by Ziehl-Neelsen microscopy were requested to take part in the study and accordingly a written questionnaire including history of: TB treatment; symptoms experienced by the patient and duration of suffering; and radiological examination was completed. The delay in diagnosis at the DMCs due to delay in health seeking by the symptomatic TB patients was evident as only 5.2% patients reported within 2 weeks and 62.6% up to 1 month of onset of symptoms.

Results: The delay in health seeking by the patients was not differentiated by sex or resistance profile, although more men attended the DMC for diagnosis. The present study is the first of its kind to report diagnostic delay of TB among smear-positive TB patients of Rayagada, a tribal-dominated district of Odisha, India and it reveals an extremely long diagnostic delay of TB in this area. We found that 12.9% of patients had a delay exceeding 2 months, and 50% of them had high sputum grade. This is a serious concern due to the fact that each of these patients dispenses up to 3500 bacilli in each cough, and may infect 10–15 people each year, eventually creating a public health problem.

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http://dx.doi.org/10.1016/j.ijmyco.2016.09.056
Conclusion: Poor awareness of patients about the disease and limited access to health care are the bottom-line in apparent diagnostic delay of TB patients. This substantial patient delay to diagnosis is a major contributing factor for increasing transmission of TB in tribal districts of Odisha. Increased awareness of the disease is crucial in improving health-seeking behavior in these areas.

Conflicts of interest

All authors declare no conflicts of interest.