Tuberculosis in Pakistan: Are We losing the battle?

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How many private practitioners (PPs) listening to usual complaints of 'fever, cough and weakness for over two weeks' consider a diagnosis of active tuberculosis? In Pakistan, where TB is endemic and has assumed large proportions, the diagnosis would be considered and correctly treated by only a small percentage of PPs.

A study recently conducted by the authors in Karachi showed that only 66% PPs ordered sputum microscopy as the preferred method for diagnosing TB. Only 50% thought themselves as capable enough to treat patients with pulmonary TB. Only 21% doctors prescribed a correct regimen in accordance with NTP or WHO guidelines. In such circumstances, if the PPs are treating 80% of patients presenting to them with tuberculosis1, one can imagine how worse the situation can get.

Despite the fact that World Health Organization (WHO), in its effort to control TB, declared it a global emergency in 19932, TB still continues to account for the largest burden of mortality by any infectious agent worldwide. It is the second leading cause of adult death in impoverished communities of Karachi.1 Globally, Pakistan ranks 8th in terms of estimated number of cases by WHO, with an incidence of 175/100,000 persons.3 Pakistan alone accounts for 44% of total TB burden in the Eastern Mediterranean Region of the WHO comprising 23 countries.3

In a country of 144 million, approximately 1.5 million people suffer from TB indicating a prevalence exceeding 1% of the total population while 260,000 new cases occur each year. The WHO Global Tuberculosis Report of 2002 mentions the case notification rate for Pakistan was 23/100,000 in the year 2001.3 From 2000 to 2001, both the Directly Observed Treatment Strategy (DOTS) coverage and DOTS detection rate for Pakistan approximately doubled. At 5.6%, however, the DOTS detection rate is still well below the population coverage of 24% suggesting that many patients do not have access to DOTS even within the designated DOTS areas.3

To further complicate the situation, Pakistan has an extremely high defaulter rate for the completion of TB treatment ranging from 79% in 1997 to 45% in 1999.4 It is universally accepted that a partially treated TB patient is worse than an untreated one as the chronic cases are the ones who excrete multi drug resistant organisms and increase the community burden of TB.5 Partial treatment with inappropriate regimens in terms of dosage and duration is probably the most important factor leading to rise in multi-drug resistant (MDR) TB in Pakistan. In Karachi alone, the primary resistance rates for the 4 first line drugs in 1993 were 11%, 2%, 3% and 9% for Isoniazid, Ethambutol, Rifampicin and streptomycin respectively6 which increased to 27%, 15%, 11% and 13% respectively in 1996.7

Israar and colleagues in this issue of JPMA document 12 defaulters identified by Lady Health workers (LHWs) - none of these defaulters had ever registered or received treatment for tuberculosis in a government facility. They have correctly identified the

need of not only uninterrupted long term treatment but also continuous monitoring of the patients to ensure treatment compliance.

The situation reveals a very disappointing state of affairs. With the current situation, a multifaceted approach has to be adopted to improve TB management. Studies done by this author have revealed that knowledge and practices of both PPs and hospital doctors ought to be addressed and reviewed regularly as prescription errors in anti-TB therapy are not just confined to PPs alone.8,9 Education of hospital doctors is also important because PPs generally tend to follow the prescription written by doctors in the teaching hospitals so a wrong prescription written in the hospital could adversely influence the prescribing habits of PPs.

Another area which needs to be addressed is the availability of new diagnostic tests for TB at various commercial laboratories of the country. Doctors, instead of relying on sputum smear and culture are recommending these new tests which are still research tools even in the developed world. Conventional methods for diagnosis of TB should not be replaced by these novel methods until the latter are shown to be cost-effective and of equal or greater sensitivity, specificity and reliability.10

As national resources of expertise, NTPs should be strengthened to advise, contribute and monitor undergraduate, post-graduate and continuing medical education in TB treatment.1 Radical modification in medical school curriculum which stresses on National TB guidelines, its implementation and adherence to DOTS is required.11 A simple booklet should be devised and distributed to all concerned health care providers to provide clear information on TB treatment and prevention. Moreover, NTPs should help educate the public through electronic and print media about TB, its treatment and where to receive it. The situation warrants better collaborative efforts between PPs and public health services.12 These include inviting representatives of private doctors to participate in the planning process of TB control activities, involving them in case-finding activities within their areas of practice, providing them with free or subsidized but reliable laboratory services, making drugs available for the patient referred by the private doctor to the TB centre or supplying drugs to individual doctors on submission of reports and records.

Linkages need to be established between DOTS and PPs. DOTS program need to expand rapidly. The physicians have to be ensured that patients will not be snatched away from them despite their registration at the government diagnostic and treatment centre and that the patient will continue to retain his rapport with their PP. It is important to provide recognition to PP for their services. Private clinics working on the recommendations of National TB Guidelines could be made satellite DOT centers. This would allow more enthusiastic participation of the PP.

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