Pak Armed Forces Med J 2012; 62 (1): 1-2

EDITORIAL

TB – THE LESSONS NOT LEARNT

The world TB day was observed on 24th Mar. It was not much different from the previous years in the sense that some local symposia / meetings were held in a few major cities of the country. Such meetings usually contain textbook or downloaded knowledge and data prepared by institutions like the World Health Organization. They however also contain promises and commitments to fight this menace.

TB was disappearing fast from the developed countries and medical literature with a confidence level so high that it was about to be relegated to the pages of history along with polio and small pox, till the epidemic of HIV / AIDS reversed the situation.

We never got hold of the problem. The last six decades have seen establishment of very few services in the public sector where a definite diagnosis of tuberculosis can be made and this has far reaching effects. An ordinary citizen of Pakistan is still deprived of the basic diagnostic facilities especially in terms of the bacterial cultures.

Statistics from the official website of our National TB Program tell us that Pakistan ranks 6th among the countries with a highest burden of tuberculosis in the world and we contribute about 44% of tuberculosis burden in the Eastern Mediterranean Region. Though very depressing to read it is not clear, how are these figures are worked out. Most of them are generated from our main cities leaving large areas of the country either unreported or under reported.

TB hits a person in the most productive years of life and thus has direct impact on the economy. Also it is estimated that a case of open pulmonary tuberculosis will infect 15-25 cases in one year. What could be a better example of, losing at both ends, than TB, i.e. a person is forced to stay away from work so there is no income and secondly, he spends on medicine. No sooner he starts to feel better, work is resumed and the long treatment regimen is compromised. A partially treated patient is worst than a non treated one because he is the one in whom the organisms are likely to become resistant.

TB continues to teach us new combinations of alphabets like the MDR (multidrug resistant), XDR (extremely drug resistant), PDR (Pan drug resistant) and the TDR (totally drug resistant) forms of the organism. The cost of treating MDR TB is ten times in terms of the medicine and three times in terms of the length of treatment. There is off course no calculation of the overheads like the electricity, laundry food , nursing care etc. Despite all this the outcome remains far from satisfactory.

On top of all this multiple therapeutic regimes exist with the general practitioners and various hospitals across the country. A significant proportion of our young GPs are not full conversant with MDR and XDR TB.

The fundamentals have not changed over time – the most important aspect is the culture isolation of *Mycobacterium tuberculosis* because only then we can have the antibiotic sensitivity of our own isolates. The novel methods mentioned in the newer literature from the West, are not going to be feasible for some time because of the infrastructure. These include some genotypic methods like the DNA probes, Nucleic acid amplification, Polymerase chain reaction and the Ligase chain reaction and the phenotypic methods like the FAST Plaque TB. Then there are new instruments like the Xpert which though provide quick isolation of the mycobacterium but the antibiotic sensitivity is limited to rifampicin only, whereas in Pakistan we need atleast two i. e. isoniazid as well. The Quantiferon gold, which is basically something like a Mantoux test in vitro, has variable results in non cavitary disease and the ADA (Adenosine Deaminase test) has promise for the detection of the organism in the body fluids like the pleural , ascetic and the cerebrospinal fluid .

So how do we handle the problem. Improvement is required at virtually every step.

The young medical officers, the nursing and the laboratory staff must appreciate the difference between sputum and saliva. The laboratory people must ensure examining at

Pak Armed Forces Med J 2012; 62 (1): 1-2

least 200-300 oil immersion fields in search of the acid fast bacilli before reporting a sample negative for it. Conventional TB culture must be made more and more widely available, because it is far more sensitive than the microscopy. Every effort must be made to know the antibiotic sensitivity pattern of our isolates and national guidelines be made according to them. These fundamentals of TB diagnostic workup and treatment be made compulsory in our undergraduate and post graduate training for all major clinical specialities. A very close and integrated working relation between the laboratory and the wards / clinics is indeed essential. If implemented in the true letter and spirit, we can in some years formulate our own guidelines and minimize our dependence on external sources.

Brig Javaid Usman
MBBS, MCPS, M.Phil, FCPS (Microbiology)
Professor of Pathology
Army Medical College Rawalpindi