Consensus Statement on Tuberculosis: Queries?

We read with interest the "Consensus Statement on Childhood Tuberculosis" developed by the Working Group on Tuberculosis of the IAP(1). We appreciate the efforts of the expert committee in formulating the guidelines. However, we have a few queries which we would like clarified.

1. Isolated tuberculoma has not been classified in either severe or less severe form of extra-pulmonary tuberculosis. Kindly advise regarding management of a child with isolated tuberculoma.

2. The Directly Observed Treatment Short-course (DOTS) strategy is applicable to all patients with tuberculosis, including children. As per DOTS, 6 months treatment is sufficient for the treatment of TBM(2). Studies in adults and children have also found that 6-month treatment is sufficient for the treatment of TBM with fully susceptible mycobacteria(3,4). We work in a municipal general hospital with many of our patients being unable to afford anti-tuberculous therapy. Most of our children with TBM are therefore referred to DOTS for their treatment. We have treated more than 100 children with TBM using the 6-month regimen in the last five years. We have not had treatment failure or relapse in any patient who has complied with therapy. Deaths in these patients have been in the acute phase and all related to shunt malfunction or infection. The guidelines mention that lesions in TBM, miliary and spinal TB may take longer to sterilize and that relapse in such cases is associated with serious morbidity and hence a recommendation has been made to prolong the continuation phase to 6-7 months(1). It is not clear on what basis this recommendation has been made. Are there any studies which support the above statement? We feel that extending the duration of the continuation phase for the above-mentioned forms of TB without any definite evidence will also extend the duration for which the child will be exposed to the side effects of antituberculous drugs.

3. Paradoxical reactions are fairly common during the treatment of tuberculosis and steroids have been found to be useful in their treatment(5). This has not been mentioned in the guidelines while describing the role of steroids in tuberculosis.

4. As per the World Health Organisation guidelines (2003) for the treatment of tuberculosis, BCG vaccination of the newborn should be postponed until the end of isoniazid prophylaxis(2). The expert committee in the article have mentioned that "Vaccination with BCG appears to decrease the risk of tuberculosis in exposed infants, but *the effect is variable*"(1). We feel that it should be clearly spelt out in the guidelines that BCG vaccine should be administered only after INH prophylaxis has been completed.

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REPLY

1. Isolated tuberculoma being a part of neuro-tuberculosis is a severe form of extrapulmonary tuberculosis and should be treated with category 1 regimen with steroids, similar to TBM.

2. It is clearly mentioned that there are studies to suggest adequacy of 6 months treatment in TBM and military TB. However, in case of delayed response to assigned therapy in category 1 and 2, it is recommended to prolong intensive phase by 1 month and continuation phase by 3 months in such patients. This is based on observation that in few patients, standard regimen falls short of desired outcome that is achieved by extension of therapy(1). We note with interest that authors of this letter have data of 100 cases of TBM treated with standard 6 months of therapy and followed up to confirm cure and no relapse. It is worth publishing this data in peer-reviewed journal and we are sure that guidelines can be subsequently modified accordingly.

3. While paradoxical reactions do occur, we feel that they cannot be considered as "fairly common". In any case, such reactions are in the form of pleural effusion, tuberculoma or increase in size and number of existing tuberculomas or lymphnode enlargement. Tuberculoma and mediatinal compressive lymphadenopathy are mentioned as indications for steroids and it holds true irrespective whether such lesions represent initial disease manifestation or paradoxical reaction. Superficial lymphnode enlargement or pleural effusion are not indications of steroid therapy.

4. As such protective effect of BCG vaccine is variable and administration of INH does not have any significant effect on take up of BCG vaccine. Moreover, BCG vaccine is routinely administered at birth and diagnosis of tuberculosis in mother is often made thereafter.

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Consensus Statement on Childhood Tuberculosis

The consensus statement on childhood tuberculosis constituted by the Working group on Tuberculosis, IAP 2008(1) claims that "Few studies have reported as high as 33% bacteriological positivity even in primary disease such as hilar lymphadenopathy." This contradicts the concept of primary tuberculosis, which we understand till date as being difficult to diagnose by demonstration of AFB due to its paucibacillary nature, and the fact that Ziehl-Neelson stain can reveal AFB only if the sample contains >10,000 bacilli per mL. In fact, both the references quoted by the working group(2,3); on which the entire algorithm for diagnosis of tuberculosis in children is based, are actually studies done on mixed population of primary, progressive primary and cavitatory tuberculosis. In the study by Somu, *et al*.(2) of the 50 cases, there were only 6 cases of hilar/ mediastinal lymphadenopathy, of which only one was positive for AFB on gastric lavage(2). In their study, the positivity rate was highest in cases with cavitation and consolidation. In the study by Singh, *et al*.(3) of the 58 children, only 13 cases had primary complex or paratracheal/hilar lymphadenopathy. The study did not separately reveal the positivity of AFB on gastric lavage/BAL in this subgroup of children, but only reported the overall positivity in the study as 34.5%. Thus, generalising the conclusions of these studies in the general population with predominant primary