

complex seems to be unreasonable. Further studies in children with primary complex need to be done before such guidelines are laid down.

As regards treatment, the present algorithm rightly lays emphasis that there is no role for empirical trial of antitubercular therapy. However, in “probable cases” which includes all symptomatic children/children with history of contact with radiology suggestive of tuberculosis, positive skin test, but with bacteriology negative for AFB, the guidelines of treatment have not been specified. With the AFB positivity rate being actually low in primary complex (as mentioned above), and with not enough Indian data available, this would not be a good suggestion in a community set up in an endemic nation like ours where under-treatment of tuberculosis would be more hazardous than overtreatment.

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bacteriological diagnosis of childhood pulmonary tuberculosis. *Indian Pediatr* 2000; 37: 947-951.

REPLY

1. It is true that there is scanty literature in India on bacteriological confirmation of childhood tuberculosis and specifically related to primary complex. Both studies quoted do show bacteriological positivity to an extent of 30% though separate data on primary complex is not available in one of the studies while the other study quoted 15% positivity in primary complex. Thus it was not possible to draw definite conclusion with studies involving small number of children. We intended to give a strong message that we must attempt bacteriological diagnosis in every case of childhood tuberculosis including primary complex irrespective of success, and I am sure more we try more we will find AFB.
2. As regards to “probable” case of childhood tuberculosis, decision of treating would depend upon individual physician’s analysis of probability. In case of doubt, one should consider another opinion and then take a decision. There cannot be structured protocol for such cases. It is not correct to presume that overtreatment is safer than undertreatment. In fact mistakes on both sides are hazardous and that is the reason we hope that our members follow the protocol to minimize both undertreatment and overtreatment. That is also the reason that we have stressed on bacteriological diagnosis.

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Consensus Statement on Childhood Tuberculosis

We read with interest consensus statement on childhood tuberculosis (1). This statement is not

only important for private practitioner but also for those working in the Government/ Public sector. However, we would like to share our experience with childhood tuberculosis.

The Group has rightly recommended the dose of tuberculin unit for Montoux test (MT) that it should not exceed 5TU. In developing country, such as

India, with high prevalence of tuberculosis, 1 TU is the recommended dose as per the WHO guidelines(2). But we have observed that pediatricians are still using 10 TU for MT and anti-tuberculous therapy are being started on the basis of positive MT. Span diagnostic, Surat one of the largest manufacturers in India is also producing 10 TU much more as compared to other strength (1 TU, 2 TU and 5 TU) as the demand of 10 TU is high (Personal communication with production manager). We have already undertaken a study to identify cutoff value for diagnosis of tubercular infection with different strength and formulation of tuberculin. Preliminary results of our study suggest false positive diagnosis of tubercular infection when MT strength is increased from 1 TU to 5 TU.

We urge the Academy to come forward and write letters to all leading manufacturers of tuberculin in India not to produce MT more than 5 TU strength. Last but not least, diagnosis of tuberculosis is not a problem in India; it is overdiagnosis and empirical use of anti-tuberculous therapy which is being the major problem.

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REPLY

We appreciate the concern of Dr Goyal, *et al.* about strength of tuberculin used in the diagnosis of childhood tuberculosis. Our group debated over this issue and arrived at consensus to suggest not more than 5 TU strength of tuberculin to be used for diagnosis of childhood tuberculosis. We also discussed whether cut-off for natural infection should be more than 10 mm. Though many of us thought that cut-off may have to be higher than 10 mm, lack of evidence made us continue with 10 mm as cut-off for the present. Further, we have already emphasised that diagnosis should not be considered on the basis of any single test. I am sure you are aware that 1TU and 2TU tuberculin is now available and it is time our members start using 1 or 2 TU tuberculin. If we stop using 10 TU, manufacturers will automatically stop producing it.

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Iatrogenic Kwashiorkor

We report four cases of kwashiorkor in infants, who had a pre existing skin disorder and who were on dietary restrictions as part of their treatment in Alternative medicine.

Complementary and alternative medicine are increasingly being used to diagnose or treat allergic diseases, and numerous studies have reported benefits of this type of medicine. However, severe nutritional deficiencies can occur in infants and small children given strict alternative diets, leading

to 'kwashiorkor'(1). These four cases, three of whom had atopic dermatitis and one had epidermolysis bullosa, presented with generalized edema, skin peeling, hair changes, apathy, and not gaining weight. On examination, three of these cases had kwashiorkor and one had marasmic kwashiorkor. Investigations supported the diagnosis. In all these cases, the nutritional deficiencies were caused by severe dietary restriction placed by the treating alternative medicine. The ratio of protein to energy in this diet is very low as most forms of protein are taboo in this diet(1). For example, cow's milk and milk products except ghee, pulses and oils as they are "gas forming", Ragi and most fruits as they are "cold food", were restricted. It is this