

cases. Congenital TB is suspected based upon clinical examination (hepatosplenomegaly with or without pneumonia), chest skiagrams, microbiological diagnosis and ultrasonology of the abdomen for any hepatic granulomas, particularly in a neonate born to a mother who is suffering from active tuberculosis.

VARINDER SINGH AND BN SHARATH
4vsingh@gmail.com

REFERENCES

1. Kumar A, Gupta D, Sharath BN, Singh V, Sethi GR,

- Prasad J. Updated national guidelines for pediatric tuberculosis in India, 2012 *Indian Pediatr.* 2013;50:301-6.
2. Rapid advice: Treatment of TB in children. WHO 2010.
3. Thee S, Seddon JA, Donald PR, Seifart HI, Werely CJ, Hesselting AC, *et al.* Pharmacokinetics of isoniazid, rifampin, and pyrazinamide in children younger than two years of age with tuberculosis: evidence for implementation of revised World Health Organization recommendations. *Antimicrob Agents Chemother.* 2011;55:5560-7.
4. Menzies Dick, Al Jahdali H, Al Otaibi B. Recent developments in treatment of latent tuberculosis infection *Indian J Med Res.* 2011;133:257-66.

Pediatric Tuberculosis

I read the recent updated guidelines for pediatric tuberculosis in India with interest, and found them to be informative. However, there may be practical difficulty in evaluating exact weight loss which has been defined as weight loss more than 5% of highest weight recorded in 3 months [1]. Weight loss in terms of percentage can only be defined if previous weight of the child is known. Common presentation of children belonging to rural area is anorexia, fever and complain by parents of weight loss as measured from dress size.

What are suggestions of the authors regarding interval between subsequent repetition of tuberculin sensitivity test as TST is being used as a tool to diagnose pediatric tuberculosis in conjunction with sputum and gastric lavage microscopy along with chest X-ray; every time child presents with unexplained fever, anorexia and weight loss. Should it not be recommended to keep a record of tuberculin sensitivity testing.

Tuberculosis - A Quest Towards Objectivity

I read with interest “updated National Guidelines for pediatric tuberculosis in India, 2012” and appreciate the effort made to clarify certain grey areas of interpretation like weight loss or no weight gain besides presenting the contents as flow diagrams for ready reference [1]. I would like to draw attention to certain points requiring further clarification to enable a clinician to use these guidelines

BALJINDER KAUR
Assistant professor, Department of Pediatrics
GMC and RH Patiala, Punjab, India.
banga.baljinder@yahoo.com

REFERENCE

1. Kumar A, Gupta D, Sharath BN, Singh V, Sethi GR, Prasad J. Updated guidelines for pediatric tuberculosis in India 2012. *Indian Pediatr.* 2013;50:302.

REPLY

In response to Kaur, we wish to state that (a) while it is true that the weight records may not be available in many situations but objectively defining these symptoms to cleanly identify disease suspect leads to a better yield as it will improve the performance of the diagnostic algorithm. In the event where the exact weight loss cannot be quantified, one may still investigate for TB if the clinical suspicion is high; (b) prior TST testing, even when repeated, is not considered likely to give rise to false positive reactions.

VARINDER SINGH AND BN SHARATH
4vsingh@gmail.com

practically and effectively in a wider range of situations.

According to figure 1a and 1b, a symptomatic sputum negative patient undergoes chest X-ray and TST. Following this, the possible results would be in six ways as per the outcome of these two investigations.

Chest X-ray can be read as: (a) Highly suggestive of tuberculosis, (b) Non-specific shadows (c) Normal; TST can be read as: (i) Positive, (ii) Negative. Though most of the possible scenarios are dealt with properly, it does not provide an approach for (a+ii) that is highly suggestive XRC and TST negative. Similarly it does not justify the

use of TST when XRC shows non-specific shadows as no decision is based on TST results whether positive or negative.

CT scan is a useful diagnostic modality in children when tuberculosis is suspected and the radiographic findings are normal or inconclusive [2]. Chest CT can help to identify enlarged, calcified, necrotic mediastinal lymph nodes, which are less frequently found in community acquired bacterial pneumonia and frequently obscured by thymic shadows on chest radiographs of children [3]. It may also detect pulmonary parenchymal lesions not otherwise visualized on chest radiographs [4]. Therefore, a TST positive, sputum negative clinical suspect in such scenario may be subjected to CT scan chest as first investigation (wherever possible) before taking on other investigation for alternate diagnosis.

As tuberculin skin test is defined with the use of tuberculin 2 TU and its procurement is difficult outside government supply, it would be useful to share the manufacturer of such product.

A GUPTA

*Department of Pediatrics and Neonatology,
Fortis Hospital and Research Centre, Faridabad, India.
dramitgupta2001@gmail.com*

REFERENCES

1. Kumar A, Gupta D, Sharath BN, Singh V, Sethi GR, Prasad J. Updated National Guidelines for pediatric tuberculosis in India, 2012. *Indian Pediatr.* 2013;50:301-13.
2. Kim WS, Moon WK, Kim IO, Lee HJ, Im JG, Yeon KM, *et al.* Pulmonary tuberculosis in children: evaluation with CT. *Am J Roentgenol.* 1997;168:1005-9.
3. Peng SS, Chan PC, Chang YC, Shih TT. Computed tomography of children with pulmonary Mycobacterium tuberculosis infection. *J Formos Med Assoc.* 2011; 110:744-9.

4. Swaminathan S, Raghavan A, Datta M, Paramasivan CN, Saravanan KC. Computerized tomography detects pulmonary lesions in children with normal radiographs diagnosed to have tuberculosis. *Indian Pediatr.* 2005; 42:258-61.

REPLY

The author has raised the issue about dealing with children with highly suggestive radiology, who are TST negative. With certainty it is spelt out in the diagnostic algorithm that a presumptive pediatric TB case with TST negative and chest X-ray findings suggestive of TB should be diagnosed based on X-ray findings; because the TST suffers from lack of sensitivity and specificity, and there are operational issues concerned with performing the test efficiently. In view of radiation risk and issues pertaining to CT interpretation (low specificity and inter observer variability) [1,2] it is neither necessary nor appropriate to recommend CT scan as first line investigation. However, the algorithm has identified situations where an expert opinion is needed and they may ask for more detailed investigations including CT chest.

VARINDER SINGH AND BN SHARATH

4vsingh@gmail.com

REFERENCES

1. Andronikou S, Brauer B, Galpin J, Brachmeyer S, Lucas S, Joseph E, *et al.* Interobserver variability in the detection of mediastinal and hilar lymph nodes on CT in children with suspected pulmonary tuberculosis. *Pediatr Radiol.* 2005;35:425-8.
2. de Jong PA, Nievelstein RJ. Normal mediastinal and hilar lymph nodes in children on multi-detector row chest computed tomography. *Eur Radiol.* 2012;22:318-21.