Pediatric Primary Pulmonary Tuberculosis

To the Editor:

We read the article by Merino et al in a recent issue of CHEST (May 2001) with interest, as childhood tuberculosis is one of the major problems in our country, and we have had quite good experience in our center. We believe that there are some points in the article that need to be clarified. In the article, the tuberculin skin test result was considered positive if the palpable induration was \( \geq 5 \) mm with an intradermal injection of two tuberculin units of purified protein derivative RT 23 (equivalent to five tuberculin units of purified protein derivative test). The American Thoracic Society has recently published guidelines for determining a positive tuberculin skin test reaction, and stated that an induration \( \geq 5 \) mm should be considered as positive only in HIV-positive patients, recent contacts of tuberculosis cases, those with fibrotic changes on chest radiograph consistent with old tuberculosis, and patients with organ transplants and other immunosuppressed patients. In the article by Merino et al, it is not mentioned whether the patients have such risks, and it is not clear why they preferred to choose a cutoff value of 5 mm. Besides, the status of bacille Calmette-Guérin vaccination of patients is not mentioned; if they are vaccinated, it should have been kept in mind that the mean reaction size among persons who have received bacille Calmette-Guérin vaccination is often \( > 10 \) mm.

In addition, how the authors differentiated the patients with cavities in their lungs as a radiologic finding who have "progressive primary tuberculosis" from patients who have "reactivation tuberculosis"?

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To the Editor:

I have read with interest the comments by Doğru et al about our article in the May 2001 issue of CHEST. The lack of specificity of tuberculin skin test implies that most of the positive test results in patients with low risk of tuberculosis are false-positive results. The recommendations of American Thoracic Society and the American Academy of Pediatrics to increase the cutoff value of tuberculin skin test to 10 mm in low-risk patients increases the specificity of the test and reduces the false-positive test number. This is true in communities with low incidence rates, as in the United States (2.85 cases per 100,000 children per year in 1994). In Spain, with incidence rates in general and pediatric populations of 40 cases per 100,000 children per year and 17 cases per 100,000 children per year, respectively, the cutoff value of 10 mm could increase the false-negative results. Indeed, both the Spanish Society of Pediatric Pneumology and the Spanish Society of the Respiratory System Pathology recommend a cutoff value of 5 mm to consider a test result as positive; besides, the American Academy of Pediatrics considers it positive when an induration \( \geq 5 \) mm is present in a child with a chest radiograph that showed features suggestive of tuberculosis. Our patient selection was based on a chest radiograph with these characteristics.

I agree with Doğru et al that prior bacille Calmette-Guérin vaccination modifies the result of tuberculin skin test. None of our patients received the bacille Calmette-Guérin vaccination.

It is difficult to differentiate progressive primary tuberculosis from reactive tuberculosis because both clinical and radiographic findings may overlap. Progressive primary tuberculosis refers to local progression of parenchymal disease with development of cavitation; this progression occurs in a small percentage of patients with primary disease and is similar in morphology and course to postprimary disease.

In our series, four female children showed cavities in chest radiographs. In three of them, cavities were associated with multiple parenchymatous consolidation that affected to two, three, and four lobes, respectively. In the other patient, cavitation was associated with left-upper-lobe consolidation, atelectasis, and hilar lymphadenopathy. All patients showed nonspecific symptoms, but only this patient showed hemoptysis. Curiously, the Mantoux values in this group were 20, 11, 10, and 5 mm, respectively. Probably, these four patients showed a reactive tuberculosis form.

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