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## Lung alert

### ELISpot as a predictor for development of TB in children with TB contact

T cell interferon  $\gamma$  release assays such as the enzyme-linked immunospot (ELISpot) assay are widely used to diagnose latent tuberculosis (TB) infection. Currently, however, there are few data on the benefit of such tests in predicting active TB infection among exposed individuals. This study focuses on the prognostic value of such assays in children with recent household exposure to TB compared with the use of the tuberculin skin test (TST).

A total of 908 children were followed up for a mean duration of 1.3 years; 80% had been vaccinated with BCG and 76% had received isoniazid preventive treatment. The prevalence of higher TST results was significantly greater in those who had had BCG vaccination. Of the 381 children who had a positive ELISpot test, 11 developed active TB. In 550 children who had a positive TST, 12 developed active TB.

The authors conclude that there was a similar incidence rate of TB in contacts with positive ELISpot assay and positive TST results. However, the ELISpot assay detected a similar number of active TB cases from a fewer number of candidates. In addition, household contacts with positive ELISpot results had a 3–4-fold increased risk of progression to active TB compared with those with a negative assay. Unfortunately, quantification of this response did not further refine the risk of progression to active TB. The study was also limited by the fact that only three of the incident cases were confirmed culture positive. Also, as a high proportion of contacts had received isoniazid as preventive treatment, this may have confounded the incidence rate. In the future, ELISpot testing could provide a more succinct means of providing targeted preventive treatment to fewer contacts.

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