

Twenty Four Hour Tuberculin Response in Adolescent School Children

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Background

The tuberculin test is a time tested immunological tool used for the diagnosis of Mycobacterium tuberculosis infection. Only very few studies are available reporting the prevalence of tuberculin positivity in adolescents, a high risk population for tuberculosis. Tuberculin reaction is read after 48 to 72 hours, which results in delay in the diagnosis of infection. Recent studies in healthy younger children have shown that 24 - hour tuberculin skin test evaluation is possible.

Aims & Objectives

To study the prevalence of tuberculin positivity and the predictive value of twenty-four hour tuberculin response in adolescent school children.

Material & Methods

Tuberculin (1 TU PPD RT23 Tween 80) was administered to 548 healthy adolescent school children. The induration at 24 hours was compared with that at 72 hours in these children.

Results

Ninety six children (18.3%) had a positive tuberculin reaction. The prevalence of tuberculin positivity was least (13.8%) in the 10 year age group and maximum in 14 year age group (24.1%). When the effect of BCG scar status on tuberculin reaction was studied, it was noted that the induration size was not affected by the BCG scar status. When the individual values of the tuberculin reaction at the end of 24 and 72 hours were compared, a significant difference was noted irrespective of the tuberculin status ($F = 7.9, P = 0.001$). However, when the tuberculin reaction was considered as positive or negative, this difference was not significant ($P > 0.05$).

Conclusions

The tuberculin status in adolescents can be read as positive or negative at 24 hour, irrespective of their BCG scar status.

Keywords: 24 hour reading; Mantoux test; Tuberculin; Adolescent.