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REVACCINATION WITH BCG IN THE POST HIV PERIOD

Dear Editor,

This is in reference to the article 'National Tuberculosis Control Strategy in the Post HIV Period' [1]. The authors contend that revaccination with BCG between 12 to 15 years of age will help prevent severe forms of tuberculosis if an individual later on becomes HIV positive. In this regard, two aspects need to be considered.

Firstly, the need for revaccination with BCG is itself a controversial issue. In Hungary, tuberculin negative individuals are revaccinated at 3, 6, 10, 14, 17 and 20 years of age. Their data has shown more significant reduction in the incidence of childhood tuberculosis than that of adult disease [2]. In our country tuberculosis is endemic. Booster doses are therefore not recommended because natural infection maintains the level of immunity [3,4]. Hence, the entire logistic and financial burden of revaccination can be avoided.

Secondly, the aim of BCG vaccination is to induce a benign, artificial primary infection which stimulates cell mediated immunity (CMI) against subsequent infection with virulent tubercle bacilli [5]. It is also a fact that the CD4/CD8 ratio keeps decreasing through the course of HIV seropositivity till a stage comes when opportunistic infections like tuberculosis sets in. Thus a revaccinated individual who becomes HIV positive may, at worse, have no resistance to tuberculosis or, at best, develop tuberculosis later than a non-vaccinated individual. There is no available literature to suggest that BCG revaccination

retards the suppression of CMI in individuals who subsequently become HIV positive. However, CD4/CD8 ratios in HIV positive tuberculosis patients have shown improvement after short-course chemotherapy [6].

With the available data on BCG vaccination schedules and the effect of HIV infection on CMI it is felt that revaccination with BCG between 12 and 15 years of age would not, in our country, confer any significant advantage.

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Authors Reply

Dear Editor,

BCG has been administered to more than 2 billion personnel as a vaccine against tuberculosis. It is clearly safe but its efficacy in preventing adult forms of tuberculosis is in dispute. However, the disseminated forms of tuberculosis which have higher mortality rates among children have been virtually eliminated.

More often than not disseminated forms of tuberculosis are the terminal events in AIDS patients a situation not unlike childhood forms of tuberculosis which develop mostly in children who have not been protected by BCG vaccination.

Suggestion to administer BCG primary/booster doses at 12-15 years of age which is generally prior to their likely exposure to HIV through sexual contact is based on the following :-

- a) With an additional BCG inoculation, prior to the sexual exposure of the individual to the HIV infection, the manifestation of disseminated tuberculosis as a terminal event in AIDS patients could be hypothetically prevented.
- b) Since no studies or controlled trials are available on this issue it is suggested that we may undertake such studies among the Armed Forces controlled population.

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