Tuberculosis in a BCG Vaccinated Child with Leprosy

Leprosy is widely prevalent in adults in India, with prevalence rate of 5.7 per 1000(1) but is uncommon in childhood(2). However, tuberculosis is widely prevalent in both adults and children. Occasionally the two conditions may occur together posing problems in diagnosis and therapy(3-5). We report a 5-year-old patient who had received BCG vaccination and later developed leprosy and tuberculosis.

A 5-year-old boy presented with well defined hypopigmented macules over the left leg, elbow and arm of two year duration and a recent appearance of an erythematous plaque on the right nasal alae. The hypopigmented macules showed erythematous infiltration over the next 4 months. He was normally built for his age; there was no lymphadenopathy or enlargement of the liver or spleen. The right ulnar nerve was thickened and tender and the popliteal nerves were palpable. Fine touch, pain and temperature sensations were impaired on the involved region. The father and aunt were suffering from borderline tuberculous leprosy. The child had received BCG vaccination. On investigation, the hemogram showed a hemoglobin of 10 g/dl and a total WBC count of 9700 cells/cu mm with 62% lymphocytes. The tuberculin test performed with 5 tuberculin units was positive (30 \times 25 \text{ mm}). Chest roentgenogram showed bilateral parenchymal lung infiltrations, along with hilar lymphadenopathy. The skin biopsy from lesions on the leg showed borderline tuberculoid (BT) histology consisting of diffuse epithelioid–cell infiltrate in the dermis and few lymphocyte infiltrate. Smear examination for acid fast bacilli was negative. The child recovered well with simultaneous administration of

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one year antituberculous therapy consisting of isoniazid and rifampin and two years multidrug therapy (MDT) for leprosy consisting of dapsone, rifampin and clofazimine and is still under followup.

In adults, lepromatous leprosy is reported to occur in association with tuberculosis(3-5), and three are case reports of tuberculosis leprosy and tuberculosis also(6). Our case had borderline tuberculous leprosy with pulmonary tuberculosis and had BCG vaccination. Lepromatous leprosy as such is rare in children(2). BCG vaccination leads to conversion of tuberculin as well as lepromin tests because of antigenic similarities between $M. tuberculosis$ and $M. leprae$ and therefore, confirm some degree of protection against $M. leprae$ as well(7). In view of workers(3-6) report of concomitant occurrence of leprosy and tuberculosis, it is desirable to investigate children suffering from leprosy to exclude tuberculosis.

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NOTES AND NEWS

4th ANNUAL CONFERENCE, IAP BIHAR STATE BRANCH

The 4th Annual Conference of the Indian Academy of Pediatrics, Bihar State Branch will be held at Dhanbad on 6th December, 1992.

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