ROLE OF BCG VACCINATION IN THE DIAGNOSIS OF CHILDHOOD TUBERCULOSIS

Diagnosis of Tuberculosis in childhood is controversial usually. Diagnostic parameters which are taken under consideration are clinical, routine laboratory and radiological, culture, antigen antibody test. As antigen antibody test are very costly and culture reports take 6 weeks usually these tests are not done frequently. In children, commonly used tests are erythrocyte sedimentation rate (ESR), Montoux test and X-ray chest.

Clinically gradual loss of weight, anorexia, anaemia, lethargy, protein energy malnutrition with anergy to any antigen are the common clinical manifestation. Due to anaemia, ESR is usually high and sometimes due to pyogenic lung infections hilar nodes are often enlarged so it is very difficult to diagnose childhood tuberculosis on the basis of X-ray and ESR. One common antigen antibody test / BCG or Montoux test should be done to diagnose tuberculosis. In 42-50% cases of protein energy malnutrition cases, Montoux test is negative but BCG test is found to be very sensitive and accurate due to more antigen load. In Kohalpur Teaching Hospital NGMC Nepal, we conducted a study for early diagnosis of tuberculosis by giving 0.05ml

BCG vaccine intradermally and seeing the response on 100 outpatients of pediatrics department, we found 65% of the patients developed induration more than 10 mm in size. Patients visiting OPD with either of the following complaints had undergone the test prolong mild, grade fever, loss of weight, anorexia, lymphadenopathy and persistent cough. Patients who had BCG test more than 10 mm after 48-72 hours were given anti tubercular drug therapy in recommended doses with three drugs (Pyzina, INH and Rifampicin). Follow up after one montoux those patients who received antitubercular drug on the basis of positive BCG test, started recovering in terms of increase in weight, appertite, activity and subsidence of fever. From our study we conclude that BCG test can be done as a very cheap, reliable, sensitive and easily available for rapid diagnosis of childhood tuberculosis in the community of Nepal.

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