

complex located outside vascular space and precipitated bilirubin acid in the phospholipid membranes

However, the authors have made two other important observations (i) A linear correlation between TcBI and serum bilirubin is maintained even after the newborn infants have been placed under phototherapy, and (ii) No need to make an "unexposed window" on the forehead during phototherapy because half of the forehead of the babies already remains covered as a part of protecting eyes. Recently Kumar *et al* (3) have reported good linear correlation between serum bilirubin and TcBI, taken at the forehead, in babies who were treated by phototherapy although post-phototherapy TcBI values were different from pre-phototherapy values at the same serum bilirubin level. Further there was no significant difference ($p > 0.05$) between post-phototherapy TcBI estimated at the covered and uncovered areas of the forehead. TcBM is not widely practised in our country although it has obvious advantages of being non-invasive and can be effectively used at the primary health care level. If a nomogram for TcBI at different

levels of serum bilirubin, both before and after phototherapy, can be prepared, the TcBI may partially replace the conventional method of serum bilirubin estimation in the newborn infants and TcBM can be effectively used in the management of neonatal hyperbilirubinaemia both before and during phototherapy.

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BCG Vaccination in BCG Scar Negative Children

The recent article on this subject(1) revealed that scar failure after BCG vaccination was more common with immunization within 48 hours of life. They simultaneously observed negative *in vitro* LMI tests in an equal number of BCG scar positive and negative children. These facts point towards non utility of BCG scar

predict success of immunization, though presence of BCG scar confirms its administration. In BCG scar negative children even tuberculin testing is of no value to confirm BCG vaccination because tuberculin skin reactivity wanes with time and is unlikely to persist beyond 10 years after vaccination, and also the fact that positive Mantoux test reflects tuberculous infection irrespective of BCG vaccination(2).

Thus keeping the record of BCG vaccination is as important as it is for other

vaccines. In case of lost records, the statement of parents assumes greater importance regarding immunization in BCG scar negative children. Presently there does not exist any universal recommendation for BCG vaccination for those children where BCG scar is not seen and parents cannot recall whether BCG was given or not. In my opinion all such children should be given advantage of BCG vaccination (or doubtfully revaccination !!). To avoid unnecessary wastage such vaccination can be restricted to children upto 5 years of age who are most vulnerable to milliary and meningeal forms of tuberculosis preventable by BCG vaccination.

An interesting point in the above study was the dose of BCG vaccine. Authors used 0.05 ml(1) while the standard worldwide recommendation is to use 0.1 ml volume of

reconstituted vaccine. In spite of this 50% of the recommended dose, satisfactory immunogenicity was found. Does it make a ground in future to reduce the dose of BCG vaccine?

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Reply

Dr. Goyal has rightly pointed out that record keeping of vaccination programme in children is very important and steps should be taken to ensure it. The waning of immune response after BCG is already reported(1,2). The role of revaccination is still not clear especially in view of the presence of large number of non tuberculous mycobacteria(3) sensitizing the children and their own role in altering the immune response after BCG vaccination(4). However, some countries are already implementing revaccination(5).

BCG vaccination is being given in doses of 0.05 ml in less than 3 months and 0.1 ml in more than 3 months as a policy by State TB Center from where the subjects were

studied. Recently, for the last 6 months BCG vaccination is being given in doses of 0.1 ml to all children in our hospital irrespective of the age

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