
Immunization Dialogue

Measles Vaccination in Atopic Dermatitis

Q. *What Precautions should be taken while giving measles vaccine to a child with atopic-dermatitis ?*

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Reply

Infection with dermatropic viruses such as the herpes simplex virus and the

vaccinia virus may result in more severe disease in children with atopic dermatitis. Children with atopic dermatitis receiving small pox vaccination did have an increased risk of complications (eczema vaccinatum) but a similar effect has not been reported with measles vaccine. There are no particular specific precautions recommended while giving measles vaccination to children with atopic dermatitis, except those dictated by common sense.

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No Seroconversion After Hepatitis B Immunization

Q. *I had taken 3 doses of hepatitis B vaccine, intramuscularly in the deltoid muscles. About 6 months after the last dose when I went to the United Kingdom to appear for an examination, I was asked to get my hepatitis B antibody titre tested. I was shocked to see the report showing no antibody liter. Many other Indian doctors who had been immunized in India were also found to be antibody negative. I was given 2 more doses of HB vaccine following which I had satisfactory antibody titer. As HB immunization is becoming popular in India, my experience raises questions about the efficacy*

of the vaccine. Will you kindly clarify this situation?

K. Balasubramanian,
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Reply

There could be many reasons why a person who has taken 3 doses of HB vaccine may be sero negative. We need to examine all such reasons in order to interpret the situation described by Dr. Balasubramanian.

The HB vaccine has a certain potency as

declared by the manufacturer. The national control authority is responsible to ensure that the imported vaccine conforms with the declaration of the manufacturer. The vaccine has a temperature-stability (or lability) as determined by the manufacturer. If the limit of temperature-time is exceeded, the vaccine potency may be lower than needed. Therefore, the conditions of storage and transportation are important.

The national control authority that clears every batch of imported vaccine is the Central Research Institute, Kasauli. In the near future, India will have a National Biologicals Standards Institute, which will assume this responsibility. It is my belief that the actual HBsAg potency of the vaccine may not and need not be measured by the Central Authority, but it should peruse the full documentation by the manufacturers and ensure that all the necessary tests had been performed satisfactorily, for each imported batch.

Fortunately, the HBsAg protein in the vaccine is quite stable at room temperature. Even at 37°C the potency remains unaffected for at least 7 days. Therefore, the potency of the HB vaccine is likely to be satisfactory if it had been transported and stored under refrigeration.

HB vaccine is highly immunogenic in children. Institutions that offer HB vaccine to children are well advised to periodically test vaccine recipients for antibody response to ensure that all the antecedents of the vaccine are satisfactory. This is easily said than done. But unless it is done, we will not know for sure if the vaccine we use

inspite of its relatively high cost, is of satisfactory potency.

Finally, when adults get immunized with 3 doses of vaccine, a proportion may not develop measurable antibody. This proportion increases with increasing age, particularly beyond 30 years of age. For all elective immunizations, particularly in adults, the interval between the second and third doses should be (ideally) 5 months for getting the best antibody titers. At any rate, any doctor who gets immunized (particularly beyond 30 years) is well advised to measure HB surface antibody level. If 10 MIU/ml titer is not reached, then it is advisable to give one or two additional doses and measure antibody once again. Nearly everyone will respond adequately to 4 or 5 doses of vaccine. An occasional individual may still remain antibody negative. I was over 40 years when I took HB vaccine. In spite of 5 doses I still did not seroconvert,

but I did not pursue with further doses. Had I been a surgeon or dentist I should have persisted with 2 more additional doses, or enough doses till I seroconverted. For these and other reasons, it is better to immunize early, particularly in infancy; or early childhood, with 3 doses of HB vaccine. I have taken the liberty of sharing Dr. Balasubramanian's letter with the National Control Authority.

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