
Immunization Dialogue

Age for Typhoid Vaccination

Q. *Currently the practice is of immunization for typhoid at 2 year of age. However, we are coming across a significant number of children below 2 years of age who are suffering from typhoid fever. A need was therefore been expressed for an earlier immunization. What should be our policy?*

Rajesh G. Boob,
*Opp. Sahakar Bhawan,
Priya Talkies Road,
Amravati.*

A. Typhoid fever is caused by Salmonella typhi, an exclusive human pathogen, amplified in the human intestines and disseminated through faeces. Thus, endemicity of typhoid fever is consequent upon grossly inadequate food and water hygiene. In communities in which children below 5 years are getting infected with *S. typhi*, the level of sanitation must indeed be primitive. These facts ought to be brought to the attention of the civic authorities and the local people, so that local efforts can be made to improve the water supply, to avoid faecal contamination of water sources and to ensure adequate chlorination of piped water supply, if any. Similarly, washing of hands before handling or eating food, preventing flies from setting on food and thorough cleaning of soil-contaminated vegetables and fruits are simple enough to teach and practice.

The prevalence of typhoid fever is proof enough for inadequate sanitation and hygiene. In such places, we have to fall back upon immunization to protect children

(and adults) from diseases. Where children below and around 2 years are getting infected with *S. typhi*, immunization should start in infancy. At the present time, only the whole cell, killed *S. typhi* vaccine is suitable for this purpose. The Vi vaccine is not immunogenic during the first 18-24 months of age. The oral vaccine is supplied in enteric coated capsules, which is recommended for school age children.

The whole cell, killed *S. typhi* vaccine is usually supplied in India as a bivalent product, combining *S. paratyphi A* also; it is often referred to as TA vaccine. To the best of my knowledge, no one has established a policy on the age for immunization. It is quite immunogenic from 6 months of age and above. For children below 10 years half the adult dose seems to be sufficient. Primary immunization consists of 2 doses 4 weeks apart, given subcutaneously. A booster dose is recommended 3 years later and thereafter at 5 year intervals. The intradermal injection of 0.1 ml is quite satisfactory for boosters; the advantage is much less local reaction than the regular subcutaneous dose. A second advantage of the TA vaccine is that it is quite cheap; since the need for immunization is greater in poorer families, there need be no hesitation in choosing this rather old fashioned vaccine. Its protective efficacy may be no less than the newer vaccines, although such comparative data do not exist.

T. Jacob John,
*Emeritus Professor,
Department of Clinical Virology,
Christian Medical College and Hospital,
IDA Scudder Road,
Vellore 632 004.*