A follow-up study is presented of ten children vaccinated at the age of 6 months against measles with 3.0 log<sub>10</sub> Edmonston-Zagreb vaccine. Measles antibody levels 2 and 9 months after vaccination were compared. They were significantly higher 9 months after vaccination. The geometric mean of the titre was 79 and 222, at 2 and 9 months after vaccination respectively. This study showed that when a 3.0 log<sub>10</sub> inoculation was used to vaccinate young infants, a good seroconversion was obtained and the antibody level continued to rise at least until the age of 15 months.

Early vaccination of children against measles at the age of 6 months was recently introduced by the Ministry of Health in Saudi Arabia to control the high morbidity and mortality among young infants. In 1990, the World Health Organization recommended that, in areas where measles in younger infants is a major health problem, the age for vaccination should be changed to 6 months, using a high potency Edmonston-Zagreb inoculation. To meet this recommendation the WHO changed the potency requirement for the standard dose to be at least 4.0 log<sub>10</sub> plaque forming units (pfu) or 50% tissue culture infective dose (TCID<sub>50</sub>)/dose before the stability test. This new potency requirement applies to all measles vaccines and not only to Edmonston-Zagreb (E-Z) vaccine.

In Sulaimania children's hospital, Riyadh, Saudi Arabia, 27 children were vaccinated against measles with Edmonston-Zagreb (Moraten Berna) vaccine at the age of 6 months. Each dose from the vaccine contained no less than 3.0 log<sub>10</sub> TCID<sub>50</sub>/dose which meets the old requirement for the standard dose. (The new definition was adopted by the WHO after the start of the study and so, the new vaccines with the new potency were not available.) It was found that 26 of 27 infants showed seroconversion when assessed 2 months after vaccination. Seroconversion was defined as a two dilution rise in the titre. An indirect fluorescence technique was used to measure the measles antibody level (IgG).

In order to follow the pattern of measles antibody level after vaccination, especially after the change in the potency requirement by the WHO, 10 of these 27 children were recalled at the age of 15 months which was the legal age of vaccination for measles mumps and rubella (MMR) immunization at that time (9 months after vaccination with E-Z measles vaccine). A blood sample was taken before giving MMR to measure again the level of measles antibody and to compare it with that measured 2 months after vaccination. All the 10 children were already seroconverted 2 months after vaccination.

**Method**

In a plain tube, 3 ml of blood were collected. Sera were separated and stored at -20°C. Measles antibody levels were measured using indirect fluorescence technique with Virgo Electronucleonics Kits (USA). Samples taken