

SUMMARY

Measles is the most contagious infection in humans. It has become a rare disease in many countries with the wide spread use of measles vaccine. Nevertheless preventable morbidity and mortality continue to occur.

Though the incidence of measles has been decreasing since immunization against measles was started in 1984 in Sri Lanka, no laboratory based serological studies have been carried out to assess the seroconversion rate following vaccination. The present study was designed as a preliminary study to assess the seroconversion rate in Sri Lankan children following measles vaccination, at the completion of 9 months of age.

Hundred and thirty four infants who received the measles vaccine at Lady Ridgeway Hospital Colombo were selected as the study sample. 2ml of venous blood was collected from these infants prior to vaccination. Post vaccination blood samples were collected 6-8 weeks after vaccination. 32 infants did not report back for the post vaccination examination and they were excluded from the study. The pre and post vaccination sera were tested in parallel using an enzyme immunoassay technique for the presence of anti measles IgG antibodies.

Of the 102 prevaccination samples, all but one was negative for anti measles IgG antibodies. Out of the 101 antibody negative infants, 94 became sero positive 6-8 weeks after measles vaccination (sero conversion rate - 93.06%). According to statistical analysis this rate is not significantly different from the expected rate of 95% ($Z=2.55$). None of the vaccine recipients complained of any major side effect, but 11.7% complained of mild adverse effects such as fever, rash and local reactions at the site of injection. Sero conversion rate of 93.06% at 9 months of age justifies the national policy of administering the measles vaccine at that age and low percentage of mild side effects shows that it is a safe vaccine.

Global goals for measles reduction was set at reducing measles cases and measles deaths by 90% and 95% respectively by the end of 1995. To achieve this goal, all countries had to achieve over 90% vaccination coverage. In Sri Lanka immunization coverage against measles for the first quarter of 1996 was 89.6%. With such a high coverage and a seroconversion rate of 93.06%, it is hoped that measles would soon become a rare disease in Sri Lanka.