



The objectives of the study are to assess the immunogenicity against rabies and tetanus produced by combined purified vero cell rabies vaccine and tetanus toxoid vaccine given altogether intradermally and their side effects during vaccination.

Ninety samples from rabies clinic at Science Division, The Thai Red Cross Society (Queen Saovabha Memorial Institute) (QSMI), aging from 15 to 50 years, neither previous history of rabies vaccination, nor an immunosuppressive drugs user and attending QSMI for treatment were random selected. All were vaccinated and divided into three discrete groups as follow:-

Group 1 (30 subjects) received only PVRV intradermally.

Group 2 (30 subjects) the schedule of immunization was the same as group 1 but vaccine used was combined PVRV and TT intradermally 1 site on day 0 and day 28.

Group 3 (30 subjects) the schedule of immunization was the same as group 1 but vaccine used was combined PVRV and TT intradermally 2 site on day 0 and 1 site on day 28.

All subjects had blood drawn on assigned date. Rabies antibodies and tetanus antitoxin were determined by the Rapid Fluorescent Focus Inhibition Test (RFFIT) and the Enzyme Linked Immunosorbent Assay (ELISA) respectively. The protective level of both rabies antibodies and tetanus antitoxin were considered at

0.5 IU/ml.

The immunogenic competence of rabies antibodies titers of all groups were found on day 14. Rabies antibodies level within group on day 14 was statistically similar on day 28, 35 and 104 but significantly higher than on day 7 and 90 in all groups. tetanus antitoxin titers in group receiving PVRV with TT (Group II, III) on day 35 and 104 were significantly higher than titer on day 0 but not found in group receiving PVRV alone (Group I)

Both of rabies antibodies titers and tetanus antitoxin titers in group receiving PVRV with TT (Group II, III) were not significantly different from the group receiving PVRV alone however there was a trend for a higher antibodies level.

Age was not related to rabies antibodies response.

Side-effects assessment during vaccination demonstrated that the incidence of itching and erythematous swelling at injection site with combined PVRV and TT were significantly higher than those with PVRV only. Other side effects were equally distributed among the three groups.

These findings disclosed that the combined rabies vaccine and tetanus toxoid injected intradermally gave a trend of higher antibody production of both rabies and tetanus. This procedure would simultaneously facilitate the new method of higher antibody production and prevention of both rabies and tetanus.