SUMMARY

Rabies has become a serious public health problem in Sri Lanka, which claims over one hundred to one hundred and fifty human lives annually. This only comprises part of the true figures since a significant proportion of rabies deaths are not being reported. As there is gross under reporting of deaths due to rabies, these figures do not give us the true picture of the situation. Prevention of rabies largely depends on proper management of patients following exposures to suspected rabid animals. This includes immediate wound care and anti rabies vaccine therapy with or without immunoglobulins depending on the severity of the exposure.

In Sri Lanka, the use of nerve tissue vaccine was stopped since March 1995. Even though tissue culture vaccines are found to be safe and quite effective than nervous tissue vaccines they are not freely available in most developing countries due to the high cost.

Due to the increasing demand and the cost of these vaccines each year, the Ministry of Health decided to introduce the use of WHO accepted intradermal (ID) route of anti rabies post exposure therapy (PET), where

only $1/5^{th}$ of the dose is used, when compared to the conventional intramuscular (IM) immunization. This method of ID – PET was introduced in the National Hospital Sri Lanka (NHSL) and the Lady Ridgeway Hospital (LRH) Colombo in July 1997.

This is the first study done in Sri Lanka to compare the two WHO accepted ID – PET schedules ("2 site" ID and "8 site" ID schedules). Fifty healthy adults with minor exposures to rabies infection were randomly selected from the anti rabies clinic in the NHSL. Twenty five of them were inoculated the "2 site" ID schedule and the rest the "8 site" ID schedule. Three samples of blood were collected from each patient on day 0 (prior to vaccine therapy), day 7 and day 120 (30 days after the completion of vaccine course) to compare the titre of rabies neutralizing antibodies. This was done by using a tissue culture neutralization test – rapid fluorescent focus inhibition test (RFFIT).

The results of this study showed that both these schedules are immunogenic. Sixty percent of the patients who were administered the "8 site" ID schedule when compared to the "2 site" ID schedule (29.2%), produced rabies neutralizing antibodies above the WHO recommended minimum protective

level of 0.5 IU/ml of serum by the 7th day following the first dose of vaccination.

By using this highly immunogenic and economical method of ID anti rabies vaccine therapy, we are able to give Sri Lankan patients a safe anti rabies PET while saving large amounts of foreign exchange to Sri Lanka.