

## **Ruthless Killer - New Vaccination Strategies for Human Rabies Control**

Rabies is caused by a virus which is sensitive to the nervous system. Even though it causes a fatal encephalomyelitis, it is 100% preventable. Rabies disease is of two types:-furious and paralytic or dumb rabies. Though there are safe and effective vaccines available, still it is a grave public health problem in Sri Lanka. Dog is the main reservoir for transmission of rabies in the country. Medical Research Institute (MRI) is the National Reference Laboratory for rabies diagnosis and research and is kept open 24hours to offer this service. Two tests are performed routinely by the MRI for rabies diagnosis. Namely, the screening test - report issued within 24 hours and the confirmatory test- report issued within 48hours.

In 2008, there were 52 human rabies deaths, in 2009 58 deaths and in 2010 49 deaths reported. In the 1980s, there were 100-150 human rabies deaths reported. Other than dogs, cats, cattle, goats, monkeys, mongoose, and pole cats are some of the animals proved positive for rabies in the MRI. House rats have not been proved to have rabies in Sri Lanka.

Training of medical officers, nurses and other categories of health care personnel on correct management of animal bite victims is carried out by the MRI. In addition health educational programmes are also conducted on a regular basis. Due to this work, we have been able to reduce the number of human deaths due to rabies when compared to the past decade. As you are aware, the ministry of health spends a large sum of foreign exchange to import safe and effective vaccines which are used to treat animal bite victims. In 1997, WHO recommended safe and effective economical intradermal administration of rabies vaccine was introduced by the MRI in the National Hospital. By 2010, this new schedule was introduced in most of the hospitals. Thereby, the MRI was responsible for saving more than 50% of the foreign exchange spent by the ministry, to import this life saving product.

### **Vaccine quality control**

MRI is the National Control Laboratory for Vaccines in Sri Lanka. All vaccines which are imported to the country are evaluated and samples tested in the MRI, before registration by the Drug Regulatory Authority. Consultants of the MRI are members of Technical Evaluation Committees, where policy decisions regarding vaccines are made. All vaccines batches which are used in the government sector, a lot release certificate is issued and quality tested when necessary, before they are distributed to institutions by the Medical Supplies Division (MSD) and the Epidemiological Unit.

In Summary, all vaccine related work- evaluation, quality assurance and research are performed only in the MRI.

Dr. Omala Wimalaratne, Consultant Virologist & Vaccinologist  
Head/ Dept. of Rabies & Vaccine Quality Control