Editorial

CHALLENGES IN THE CONTROL OF RABIES IN INDIA

Control and final elimination of rabies, remains a major public health challenge not only in India but in most parts of South East Asia and Africa. It is now well understood that elimination of rabies would involve preventing human deaths due to rabies through timely and appropriate Post Exposure Prophylaxis (PEP) and control of canine rabies through mass vaccination and animal birth management for population control of stray dogs. Hence, Rabies is a typical example of a Zoonotic infection which does not fit into the domain of a single agency that can be entrusted with the task of controlling it. There is lack of ownership which is the major issue for control of rabies in the country.

The first challenge in the battle for Control of Rabies is preventing human deaths due to rabies through timely and appropriate Post Exposure Prophylaxis (PEP) for all.

The second challenge is Control of Canine Rabies through mass vaccination and animal birth management for population control of stray dogs.

India has made considerable progress in some aspects of preventing human deaths due to rabies in last two decades. India has the capability and infrastructure for **producing modern rabies cell culture vaccines, rabies immuno-globulins and monoclonals, to meet its own requirements and more. Other countries are importing human rabies vaccines and immunoglobulins from India. In addition, introduction of Intra-Dermal Rabies Vaccination [IDRV] and Rabies Immunoglobulins [RIGs] has** helped in improving accessibility, availability and affordability of modern PEP for all.

Studies reveal the fact that most patients are victims of rabies due to negligence, ignorance or the inadequate availability of primary health care services. Rabies is a disease of both rural and urban areas. However, the accessibility of the rural population to appropriate PEP is poor. **The third challenge is to improve accessibility to PEP for the rural poor.**

The fourth challenge is of increasing awareness amongst the medical doctors and health professionals about the importance of wound washing, appropriate use of anti-rabies vaccines and utility of Rabies Immunoglobulin (RIG) in saving the life of the victim of a rabid animal bite. Studies have shown that passive immunization is still not being practiced even in category III bites except in metro cities. Continuous medical education of medical and health professionals on post-exposure rabies prophylaxis is a challenge, and is essential to provide quality medical service to animal bite victims.

The fifth challenge is of knowing the real incidence of Rabies in Humans, Dogs and other animals. Various types of data not tallying with one another, generated by various agencies of Govt. and NGOs are available. It is very confusing.

Globally it has been shown that immunization of dogs against rabies shall result in breaking of the chain of transmission, if at least 70% of the dogs are covered with effective vaccines on a sustained basis. Most of the Municipal corporations follow an adhoc approach and immunize a limited number of dogs with the available resources and are unable to sustain the level of immunization. Though this provides individual protection to the animal, it has no bearing upon the epizootiology of the infection.

Similarly, surgical sterilization of dogs in small numbers and at erratic intervals does not yield any benefits in reduction of dog population. Control of canine rabies depends heavily on management of the dog population to sustain its acceptable levels. The efforts towards dog population management are limited and disjointed in the country. Many countries have tried depopulation of dogs without any tangible effect in the long run.

The progress in preventing human rabies through control of the disease in its animal reservoir has been slow due to technical, intersectoral, organizational and financial obstacles, together with poor implementation of efficient dog rabies control campaigns including controlling dog population. Whereas the reservoir is in animals, mortality and morbidity mainly affect human beings. Dog bite is the primary source of human rabies. There is no surveillance system for animal rabies. As a result, the impact of rabies in livestock is unknown. **Dog rabies control and dog population management are being neglected.**

The sixth challenge is to have a strong epidemiological surveillance mechanism. An accurate assessment of the ground realities, morbidity and mortality data as well as an understanding of the epidemiological trends are all very essential for successful implementation of any Rabies Control Programme. Unfortunately such mechanism for animal or human rabies is practically not available in the country. With these constraints it would be very difficult to achieve Rabies Control in India soon.