

## BRIEF REPORT

### A network of animal rabies diagnostic laboratories in India under OIE Twinning Programme

**Shrikrishna Isloor<sup>1\*</sup>, Sharada, R<sup>1</sup>, D. Rathnamma<sup>1</sup> and S. Abdul Rahman<sup>2</sup>**

<sup>1</sup>OIE Twinned Rabies Diagnostic Laboratory, Department of Veterinary Microbiology, Veterinary College, KVAFSU, Bengaluru.

<sup>2</sup>Executive Director, Commonwealth Veterinary Association

\*Presenting Author E-mail: sharadadr@yahoo.co.in

In India, rabies is endemic and widespread except Andaman and Nicobar and Lakshadweep islands. Further, most cases are reported in the rural areas where awareness about the disease is less. The situation calls for a systematic study on incidence of the disease in animals and creating awareness among the public. The confirmation of the disease requires collection of brain sample from suspected animals, proper packing, shipping and testing at the laboratory level. Conventionally, the Seller's staining was employed for diagnosis of rabies using brain sample. However, Direct Fluorescent antibody (DFA) is considered gold standard in view of its sensitivity and specificity. Most of the countries have shifted to this gold standard test from Seller's staining. With a view to provide a confirmatory diagnosis of rabies in animals and also develop the human resource in India, the Rabies Diagnostic Laboratory at Veterinary College, Dept. of Microbiology, Bengaluru has initiated the OIE laboratory twinning project from 2016 supported by the Animal and Plant Health Agency (APHA), UK and Centers for Disease Control and Prevention (CDC), Atlanta, USA. This project aims at (1) providing training in all quality assurance systems and health & safety procedures (2) improving surveillance in rabies in animals (3) knowledge transfer and training in Antigen detection methods, Virus isolation techniques & Molecular diagnostic methods (4) Proficiency testing (5) Virus characterization and molecular epidemiology. In order to develop a network of animal rabies diagnostic laboratories in India and strengthen the diagnostic capabilities across the country, various workshops were organized under the twinning programme. The First workshop involved participants from various constituent institutions of the Karnataka Veterinary, Animal & Fisheries Sciences University spread across the State. Hands-on training was provided on various aspects of sample collection, packing, transportation and testing for Rabies by Lateral Flow Assay (LFA), direct Rapid Immunohistochemistry (dRIT) and Direct Fluorescent Antibody test (DFA). Veterinarians from various parts of the country were trained in further workshops with respect to Rabies diagnosis with the motto of capacity building of local Veterinarians and also laboratory strengthening. These workshops and trainings enabled the development of a network of regional rabies diagnostic laboratories across Karnataka, Kerala, Tamil Nadu, Gujarat, Manipur, Andhra Pradesh, Telangana, Maharashtra, Madhya Pradesh, Himachal Pradesh, Assam, Punjab, Rajasthan. Trainings were also conducted for Veterinarians from the Animal Husbandry Department of the State with the support of the Karnataka Veterinary Council under the Continued Veterinary Education to strengthen diagnostic abilities of Veterinarians in field. Hands on training was provided to the Veterinarians on brain sample collection from the foramen magnum approach which overcomes the apprehensions and disadvantages of the conventional method, sample transportation, submission, reporting and diagnosis of Rabies. This resulted in an increase in the number of samples being received at the Rabies Diagnostic Laboratory and also the reporting of the disease. Many countries have eliminated Dog mediated rabies by mass vaccination and seromonitoring which needs to be adopted in the country. Workshops, trainings, seminars, conferences creates / increases awareness about the disease and inturn helps in effective control of a disease. Mass awareness programs are also a need in addition to training of veterinarians, strengthening of disease diagnostic laboratories and providing immediate veterinary and medical care in suspected cases.