

Bovine rabies: A case series from Nallur Veterinary Division of the Jaffna District

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Introduction and Objective: Rabies is an invariably fatal viral infection causing severe encephalomyelitis in humans and animals. Although rabies is preventable by vaccination, 60,000 annual human deaths are reported from developing countries. Rabies is endemic in Sri Lanka and rabies transmission occurs primarily through the bites of infected animals, mainly dogs and cats. In recent years, there have been reported cases of bovine rabies in Sri Lanka and we present a case series presenting between 2019 and 2021 in the Nallur division in Jaffna, Sri Lanka.

Case series: Eleven suspected bovine rabies cases were reported to the Veterinary Ambulatory Service in Nallur between 2019 and 2021. Upon field inspection, the cases presented with changes in the behaviour of the animals, including profuse salivation, bellowing, tenesmus, inability to swallow, hyper-excitability and restlessness and most of these cases (6/11, 64%) were bovine calves. History and further field examination revealed that the affected animals were reared under extensive and semi-intensive farm management systems. This would have made the cattle herd more prone to bites from infected stray dogs. Most of the cases (6/11, 54.5%) were dog bites from unvaccinated stray dogs. The affected animals were found dead within 4-5 days of onset of clinical signs. The head of the animals were removed soon after death and dispatched in ice to the Rabies Diagnostic Laboratory of the Faculty of Veterinary Medicine and Animal Science through the Veterinary Investigation Centre, Jaffna for confirmatory diagnosis. Fluorescent Antibody Test (FAT) and Seller's staining were done on brain tissue samples. Rabies viral antigen detection by FAT and the detection of Negri bodies in brain tissue confirmed the suspected cases to be positive for rabies. As rabies is a fatal zoonosis, the owners who handled the affected rabid cattle were advised to immediately obtain post exposure prophylaxis.

Conclusions: Bovine rabies has been overlooked in Sri Lanka as the focus on rabies has primarily been on canine rabies. Eleven confirmed bovine rabies cases in cattle between 2019 to 2021 indicates that there is a risk of transmission through livestock farming. Farmers are particularly vulnerable to contracting the virus through direct exposure to saliva. It is therefore essential to educate farmers in the Nallur area about identifying and reporting suspected cases of rabies to prevent human exposure from farm animals, including cattle.


Keywords: Rabies, Bovine, Fluorescent Antibody Test, Negri bodies, livestock farms, Sri Lanka.

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