



DIAGNOSIS OF PARALYTIC FORM OF RABIES IN A GOAT BY CORNEAL IMPRESSION TECHNIQUE-A CASE REPORT

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Rabies in goats is observed to be an alarming problem in Kerala with much public health significance. Most commonly in goats there will be major changes in behaviour characterised by apprehension, aggressiveness, hyperexcitability, irritability, nervousness, solitude, anorexia and frequent bleating with a change in voice. Paralytic form of rabies may follow the furious form or it may be the only symptom in affected goats. Many diagnostic methods are being used for rabies diagnosis, but FAT is the test recommended by OIE as it is sensitive, specific and easy to perform (Dean *et al.*, 1996). Corneal impression smears have been used to diagnose rabies in animals (Rajan and Padmanabhan, 1986). This paper reports a case of paralytic form of rabies in a goat and its antemortem diagnosis by direct fluorescent antibody test (FAT) on corneal impression smears

A goat aged two years and in the second lactation was presented to the University Veterinary hospital with a history of anorexia, frequent bleating and difficulty to get up and walk. On examination the animal was recumbent, dehydrated and weak. The temperature was subnormal and there was salivation. On handling, the animal showed frequent bleating. On enquiry the owner reported history of suspected dog bite on the face three weeks back. The wound was healed already. Since there was a history of dog bite, rabies was suspected and the corneal impression smears and saliva smears were taken and subjected to direct FAT for detection of rabies antigen. The

corneal impression smears gave a positive result where as the saliva was negative for viral antigen. The animal was kept in isolation ward in the inpatient unit. No treatment was given since the case was diagnosed as rabies. Next day the animal died and post-mortem examination was conducted. The brain impression smears revealed presence of Negri bodies. Direct FAT on brain samples was also positive for rabies antigen.

Goats are considered to be of moderately susceptible to rabies (Beran, 1981). Furious form appears more commonly in goats than the dumb form. In the present case no furious form of clinical signs were observed during the course of the disease. Regardless of the species affected rabies is one of the most difficult diseases to diagnose clinically because of the diversity of potential presentations. Immunofluorescent staining of corneal impression smears during clinical disease would be confirmatory if positive (Umoh and Blendon, 1982). Body *et al.* (2009) also found that the corneal impression technique could be an important tool for the early diagnosis of rabies even in animals not showing symptoms of the disease. In the present case direct FAT could detect rabies antigen in corneal impression smears. This report stresses the importance of corneal impression technique for diagnosis of early and atypical forms of rabies in animals. It also highlights the need of differential diagnosis of rabies from other nervous system disorder in goats because of the profound

zoonotic implications of this fatal viral encephalitis.

Summary

A case of paralytic form of rabies in a goat and its antemortem diagnosis by direct fluorescent antibody test on corneal impression smears was described. Postmortem examination revealed presence of negri bodies in the brain impression smear and direct FAT on brain samples confirmed rabies.

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