



Section D

401/D

Detection of *Rhinosporidium seeberi* in humans and animals in Sri Lanka by using the polymerase chain reaction method and detection of anti rhinosporidial IgG in domestic animals and humans in Sri Lanka.

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Rhinosporidiosis is an infective disease caused by an aquatic protozoan previously considered to be a fungus. This is a chronic granulomatous infection of the mucous membranes and usually manifests as vascular friable polyps that arise from the nasal mucosa or external structures of the eye. The etiologic agent of rhinosporidiosis is *Rhinosporidium seeberi*, is closely related to several protoctistan fish and amphibian pathogens. Most cases of rhinosporidiosis occur in persons from or residing in the Indian subcontinent and Sri Lanka. Animal rhinosporidiosis has not been reported from Sri Lanka. In our study cattle nasal scrapings and human patient's samples from nasal swabs were subjected to *R. Seeberi* - specific PCR and in this study domesticated animals and human blood samples were subjected for dot blot ELISA. Human blood samples were collected from rhinosporidiosis infected patients and asymptomatic population. Cattle (55), Buffalo (50), Dog (60), Cat (48), Goat (36) and Horse (34) serum samples were subjected to study the anti- rhinosporidial IgG antibodies. Out of 12 cattle samples 5 samples showed positive bands and Out of 4 human patients samples 2 showed positive bands, referable to *Rhinosporidium seeberi*. *Rhinosporidium seeberi* spores were taken as positive samples. Rhinosporidiosis in animals were not recorded in Sri Lanka but in our study cattle nasal scrapings were positive for the disease. PCR products were not subjected to sequencing. Of the 36 human samples titrated to determine the sero- prevalence of the disease, 33 samples was found to be positive at a titer from 1/25. Fifty five of 63 cattle, 12/60 dog, 25/50 buffalo 24/48 cat, 24/34 horse samples were found to be positive from 1/25. The end titer of all the human and animal positive samples were also determined This study many animals showed high titres for IgG. No animal cases of rhinosporidiosis have been reported in Sri Lanka. This study showed the existence of sub clinical infection, or immunization following exposure of the animals to soil and ground water.

Acknowledgements: Financial assistance by National Science Foundation Research grant (NSF/Fellow/2006/01)

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