

## FIRST CASE OF OCULAR BOVINE RHINOSPORIDIOSIS IN MEXICO

By *Eduardo Campos-Nieto\**

The rhinosporidiosis is a chronic non contagious illness caused by the fungus *Rhinosporidium seeberi*, characterized clinically by polyps or tumors localized in the nose, conjunctive, pharynx, larynx, penis, palate, and rarely on the skin. It is thought that the form of contagion is through powder, traumatism, insects, or contaminated water (Rippon, 1974; Londero, 1977).

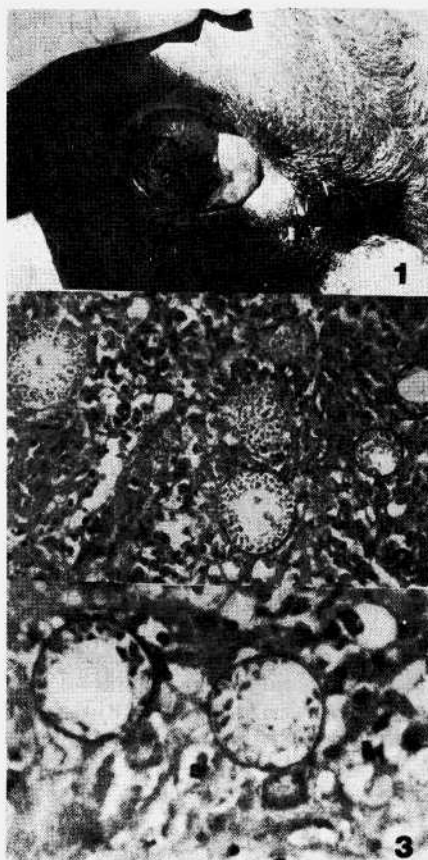
In Mexico, rhinosporidiosis has been described in humans since 1950, but to date, its prevalence is not recognized owing to the lack of information that doctors and specialists have in the matter, considering it as a rare or exotic sickness (González-Mendoza and Austria, 1975).

There have been some cases described in horses, bovins, mules, dogs and aquatic birds in India, Brazil, Argentina, United States and other countries, but the information about this sickness in animals is still to be obtained (Vanbreuseghem, 1966; Jungerman y Schwartzman, 1972; Rippon, 1974; Londero, 1977). The present work reports the first case of ocular rhinosporidiosis in a bovine of Mexico.

### CASE HISTORY

In the Municipality of Culiacan, State of Sinaloa (México), during the months of July and August of 1976, a bovine holstein, female 36 month old, showed a problem in the right eye, characterized clinically by photofobia, lacrimal hipercrenea, epifora, conjuntivitis, and increment in size of the nyctitant mebrane. It was prescribed a treatment on the basis of antibiotics, corticosteroides and proteins (casein) without obtaining any results. In view of the fact that the nyctitant membrane continued increasing in size, by December of the same year it was carried out its surgical extirpation. The histological study of the extirpated tissue showed light hyperplasia of stratified epithelium with abundant infiltration of lymphocytes and plasmatic cells in which were found

\* Domicilio actual: Instituto Nacional de Investigaciones Pecuarias, S.A.R.H., Apartado Postal M-7628, México 1, D. F.



FIGS. 1-3.—1: Bovine with the nictitant membrane dilated. 2: Histological slide of the nictitant membrane showing the infiltration of lymphocytes and plasmatic cells in which sporangia of *Rhinosporidium seeberi* were found. 3: Sporangia of *Rhinosporidium seeberi* with endospores.

sporangia with endospores characteristics of *Rhinosporidium seeberi* (Figs. 1, 2 and 3).

#### COMMENTS

Viruses and bacteria often are cited as causal agents of ocular illnesses in bovine. Nevertheless, in Mexico they are usually diagnosed clinically without any laboratory aid. As a result, a great deal of these etiological agents remain unknown (Campos-Nieto, 1975; Campos-Nieto and Martell, 1977). On the other

hand, it is quite frequent to find bovines as well as dogs, with the nyctitant membrane enlarged and these cases do not respond to common treatments. Such cases make us suppose that the incidence of animal rhinosporidiosis in México may be frequent. This point of view coincides with the supposition of González-Mendoza and Austria (1975) on the possible prevalence of this illness in Mexican people.

#### ACKNOWLEDGEMENT

I would like to express my deepest sense of gratitude to Dr. A. T. Londero, scientist to the Federal University of Santa María in Rio Grande do Sul (Brazil) for his invaluable information about this bovine sickness.

#### LITERATURE CITED

- Campos-Nieto, E., 1975. *Estudio epizootológico de un brote de queratoconjuntivitis infecciosa bovina*. Tesis profesional. Facultad de Medicina Veterinaria y Zootecnia, U.N.A.M. México, D. F.
- , and M. A. D. Martell, 1977. Aislamiento y caracterización de *Moraxella bovis* y *Moraxella fenilphyrowica* en casos de queratoconjuntivitis infecciosa bovina. *Mem 1er. Simposium Inter. Lab. Diag.* Guanajuato, México. Tomo 1, pp. 164-173.
- González-Mendoza, A. and B. Austria, 1975. Rhinosporidiosis en México. Revisión de la literatura Nacional y comentarios epidemiológicos a propósito de la observación de dos nuevos casos. *Bol. Soc. Mex. Mic.* 9:149-153.
- Jungerman, P. F. and R. M. Schwartzman, 1972. *Veterinary Medical Mycology*. Lea & Febiger. Philadelphia, pp. 40-47.
- Londero, A. T., 1977. Comunicación personal.
- Rippon, J. W., 1974. *Medical Mycology*. Saunders. Philadelphia. pp. 285-294.
- Vanbreuseghem, R., 1966. *Guide Pratique de Mycologie Medicale et Veterinaire*. Masson et Cie. Paris.

#### SUMMARY

In México, rhinosporidiosis has been described in humans since 1950. The present work reports the first case of ocular rhinosporidiosis in a bovine holstein of the State of Sinaloa (Mexico). It was characterized clinically by photophobia, lacrimal hypercrinea, conjunctivitis and increased in size of the nyctitant membrane. The histological study showed hyperplasia of stratified epithelium with infiltration of lymphocytes and plasmatic cells with sporangia and endospores characteristic of *Rhinosporidium seeberi*.

#### RESUMEN

La rinosporidiosis ha sido descrita en humanos en México desde 1950. En el presente trabajo se menciona el primer caso de rinosporidiosis ocular bovina en el Estado de Sinaloa (México). Los signos clínicos presentados fueron fotofobia, hipercrinea lagrimal, conjuntivitis y aumento de la membrana nictitante. El estudio histológico mostró hiperplasia del epitelio estratificado con infiltración linfocitaria y de células plasmáticas de estas últimas. Se encontraron esporangios con endosporas características de *Rhinosporidium seeberi*.