

Communication

Soremouth in sheep and goats at the Mankon Animal Research Station, Cameroon

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NFI (A.N.). L'ecthyma contagieux des moutons et des chèvres à la Station de recherches zootechniques de Mankon au Cameroun. *Revue Élev. Méd. vét. Pays trop.*, 1991, 44 (2) : 141-142

De 1980 à 1989, une étude a été menée sur la prévalence de l'ecthyma contagieux parmi les troupeaux de chèvres et de moutons de la Station de recherches zootechniques de Mankon (IRZ). Les résultats ont montré que cette maladie est enzootique à la station. Elle touche plutôt les chèvres (85,5 p. 100) que les moutons (51 p. 100), et les chevreaux montrent une plus grande sensibilité à la maladie (53 p. 100) que les adultes. La morbidité était très élevée (80-90 p. 100) avec cependant un taux de mortalité négligeable (2 p. 100). Les mâles comme les femelles ont été affectés et l'incidence de l'ecthyma contagieux était plus forte en saison sèche qu'en saison des pluies. *Mots clés* : Mouton - Chèvre - Ecthyma contagieux - Cameroun.

Introduction

Soremouth also, known as orf or contagious ecthyma or contagious pustular dermatitis, is a worldwide viral disease. It is an eruptive dermatitis of sheep and goats, characterized by sequential papules, vesicles, pustules and scabs on the skin of the lips, teats, udders and on the mucous membranes of the buccal or oral cavities.

Mortality associated with the disease is negligible, but could reach 75 % where systemic invasion occurs (5). Orf has been reported in sheep and goats in Nigeria by OBI and GIBBS (15) and OKOH (16), in Tanzania by NJAU (12) and in Cameroun by SINN (22). Despite very little information on the prevalence of soremouth in Cameroun, this disease is of universal distribution especially in the goat industry.

In two nationwide surveys in Nigeria, AKEREJOLA *et al.* (3), OBI (13) and OPASINA (17) all agreed that soremouth was one of the major causes of morbidity and mortality in the dry zone. On Mankon Research Station, soremouth seems to be enzootic among the sheep and goat flocks. The present paper appreciates the prevalence of this disease.

Materials and Methods

Between 1980-1989, a survey was carried out on sheep and goats at Mankon station in Cameroun. All clinical cases of soremouth were documented taking note of the breed, sex and age of the affected animals. These animals were given supportive or symptomatic therapy. The susceptibility of sheep and goats to orf was evaluated by

the number of observed cases. *Post mortem* studies were carried out in any animal that died due to soremouth, especially the young ones.

Results

Results of this study suggest that orf is enzootic at the Station and it is more a goat than a sheep disease with the incidence rate of 88.5 and 51 %, respectively, while the kids showed a higher susceptibility rate (53 %) than adults (table 1). Kids less than 2-3 months old suffered high mortalities (60 %). Recovered animals were immunized for about 3 years. The disease had a high morbidity (80-90 %) and a negligible mortality rate (2 %). Infected animals manifested papules, vesicles, pustules with necrosis and sloughing of the affected areas (scabs) as gross lesions. Deaths of nursing kids resulted from the inability to obtain milk during suckling due to scabs on both lips while death of weaned kids resulted from secondary infections like pneumonia. Both sexes were affected. Outbreaks of soremouth occurred at any time, but the disease had a higher incidence (75 %) during the dry season.

Discussion

Results of this study strongly suggest that soremouth is enzootic at the Station and that the orf virus must have been introduced by the exotic dairy goats imported from the USA in 1981. Before then, there had been no clinical case of soremouth in the indigenous sheep and goats at the station. Many clinical cases of soremouth were obser-

TABLE I Cases of orf according to breeds, sex and age.

Breeds	Sex	N° of cases	% incidence	Age	N° of cases	% incidence
Saanen	Male	5	5.2	Adult	4	4.2
	Female	5	5.2	Kid	6	6.3
Nubian	Male	4	4.2	Adult	3	3.2
	Female	2	2.1	Kid	3	3.2
Toggenburg	Male	2	2.1	Adult	0	0
	Female	2	2.1	Kid	4	4.2
WAGDG*	Male	42	44.2	Adult	33	34.7
	Female	23	24.2	Kid	32	33.7
WAGDS**	Male	5	5.2	Adult	5	5.3
	Female	5	5.2	Lamb	5	5.3
Total	Male	58	61.1	Adult	45	47.4
	Female	37	38.9	Kid	50	52.6

* West Africa Grassland Dwarf Goat.

** West Africa Grassland Dwarf Sheep.

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ved in the exotic dairy goats that year (clinical Casebook). This confirms the observation of SINN (22) that several of the animals sent to Cameroon by the Heifer Project International (HPI) had been infected in their initial farms and that orf soon occurred after their entry into Cameroon. Orf is more a disease of kids than adults according to earlier works of GUSS (8), OBI and GIBBS (15), OKOH (16), SINN (22), SCOTT and SMITH (20), NICOLETTI (11) and NJAU (12). Infected nursing kids transmitted the condition to the teats of their dams with the resulting mastitis. Such nursing kids had less opportunity to nurse and the resulting loss of body weight culminated in death.

Orf has a higher incidence (75 %) during the dry than during the rainy season, confirming earlier observations of HAWKINS (9), SINN (22) and NJAU (12). Although morbidity with orf infection may be as high as 100 %, as observed by GARDINER *et al.* (7), mortality in uncomplicated cases rarely exceeds 1 % (19). However with secondary bacterial complications, mortality could be as high as 20 to 50 % as confirmed by AYNAUD (4) and JACOTOT (10). Mortality in the present study was 2 %. This is comparable to the rate (2.5 %) reported by ADEOYE (1) in Southwestern Nigeria goats. Beside mortality, BRUNER and GILLESPIE (6) stated that orf virus infection leads to production losses due to reduced growth rate of infected kids. Vaccination of animals with a locally produced vaccine prepared from infected scabs homogenized in glycerine is effective in immunizing the young and controlling the disease (18).

NJAU (12) recorded cases of human orf on the hands of dairy goat-milkers. The present study did not show such cases. Orf is a worldwide major obstacle to improved productivity in virtually all types of goat-keeping enterprises, as confirmed by several authors (2, 6, 8, 11, 12, 14, 17, 21). The enzootic nature of orf at the station emphasizes that it is urgent to review the vaccination programme and to carry out a survey on the incidence of human orf.

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Between 1980 and 1989, a survey was carried out to appreciate the prevalence of the soremouth (orf) disease among sheep and goat flocks at the Mankon Research Station (Cameroon). The results showed that orf is enzootic at the station and is more a goat (85.5 %) than a sheep disease (51 %) with kids showing a higher susceptibility rate (53 %) than adult goats. Orf has a high mortality (80-90 %) with a negligible mortality rate (2 %). Both sexes were affected while more incidences of orf were recorded during the dry season than in the rainy season. *Key words* : Sheep - Goat - Soremouth disease - Cameroon.

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