mier groupe la transmission a été assurée par les tiques mâles et dans le second groupe par les femelles installées 3 à 6 jours après les mâles.

La durée du portage asymptomatique après guérison de la cowdriose doit être un argument majeur pour interdire toute exportation de ruminants à partir des îles infectées.

La cowdriose doit être un argument majeur pour interdire la durée du portage asymptomatique après guérison de la cowdriose car il n’existe, pour le moment, aucune méthode de laboratoire fiable pour détecter ce portage.


Creole goats and cattle in Guadeloupe can be carriers of cowdriosis (heart-water : Cowdria ruminantium) after recovery for a period as long as 11 months in goats and 2 months in cattle. The carrier status was demonstrated by feeding Amblyomma variegatum nymphs on recovered animals and the resulting adult ticks on susceptible goats. Cowdria ruminantium was not detected permanently during the carrier status. Key words : Creole goat - Creole cattle - Cowdriosis - Carrier status - Cowdria ruminantium - Amblyomma variegatum - Guadeloupe.

Bibliographie

Introduction
In Nigeria although reports of Yersinia enterocolitica infection have been made in both man and swine (2, 8, 9), attempts are made to simultaneously screen both with the aim of determining the most commonly found biotypes. In Nigeria records of Y. enterocolitica infection in man are scanty because most routine diagnostic laboratories prefer to screen mainly for Salmonella, Shigella and Campylobacter species as they are the primary causes of severe bacterial gastroenteritis. In swine there is no clear-cut picture of the role of Y. enterocolitica in the clinical manifestation of diarrhoea. Observations often reveal that 2-4 week old piglets show signs similar to those of Y. enterocolitica infection in man are scanty because most routine diagnostic laboratories prefer to screen mainly for Salmonella, Shigella and Campylobacter species as they are the primary causes of severe bacterial gastroenteritis. In swine there is no clear-cut picture of the role of Y. enterocolitica in the clinical manifestation of diarrhoea. Observations often reveal that 2-4 week old piglets show signs similar to those of Y. enterocolitica infection (13). Because of lack of knowledge on this organism in man and swine in Nigeria, faecal samples of diarrhoeic patients from the University College Hospital and some piggy farms in Ibadan were screened to determine the predominant biotypes of Y. enterocolitica in man and swine and the antibiotic sensitivity of isolated strains.

Materials and Methods
The faecal samples from diarrhoeic piglets (2 to 4 weeks old) were collected from 180 piglets and 12 sows at four pig farms in Ibadan, Nigeria. The samples were collected by inserting a clean spatula smeared with sterile liquid paraffin into the rectum of the animal and the faeces were

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put into universal bottles. Human samples were obtained from 210 diarrhoeic stools submitted to the Department of Medical Microbiology, University College Hospital (UCH, Ibadan) by patients with history of gastroenteritis.

The faecal samples were treated with KOH as described by WEISSFELD and SONNENWIRTH (15) before inoculating onto MacConkey agar (Oxoid cm 109) and CIN agar medium (12). The plates were incubated aerobically at 35 °C for 24 h. Samples which were not positive for the organism were subjected to the cold temperature enrichment technique as described by PAI et al (10). After 3 weeks in cold buffered solution, the samples were inoculated into the above media and incubated as previously described.

Antibiotic susceptibility test

Pure isolates of Y. enterocolitica grown in nutrient broth (Oxoid cm 67) were diluted 1:1,200. The antibiogram was performed as previously described (3). Antibiotic discs consisting of ampicillin (10 μg), cephalothin (30 μg), erythromycin (15 μg), gentamicin (10 μg), colistin sulphate (30 μg), polymyxinB (300 IU), tetracycline (30 μg), chloramphenicol (30 μg), kanamycin (30 μg), penicillin (10 IU), polymyxinB (300 IU) and cefotaxime (30 μg), respectively were placed on each Y. enterocolitica culture by means of sterile forceps. After incubation the diameter of zones of inhibition was measured and compared with that of a standard organism, E. coli 10418.

Results and Discussion

Yersinia enterocolitica was isolated from 8 out of 180 diarrhoeic faecal samples from 2 to 4-weeks old piglets while the organism was isolated from 2 out of 12 faecal samples from sows whose litter had clinical signs of diarrhoea. Y. enterocolitica was isolated from 8 out of 210 diarrhoeic faeces collected at University College Hospital from patients with gastroenteritis. Tests for the biotypes of Y. enterocolitica strains isolated mainly from human stool samples. Biotype 3 was found only in human faeces from piglets. This probably suggests a contamination of food and water. Antibiotic sensitivity should be carried out in all cases of diarrhoea due to Y. enterocolitica in man and swine in different parts of Nigeria. The resistance of the isolates to penicillin and ampicillin was in agreement with that observed by other authors (2, 4, 7). This is probably due to the production of β-lactamase by the organism. This enzyme is most likely the factor responsible for the ineffectiveness of the antimicrobial agents. Work is in progress on the serological typing of Yersinia enterocolitica isolates.

Conclusion

Some Yersinia enterocolitica biotypes found in swine were also isolated from man. It is reaffirmed that piglets could act as a potential source of infection for man through contamination of food and water. Antibiotic sensitivity should be carried out in all cases of diarrhoea due to Yersinia enterocolitica in order to determine the most suitable antibiotic for the treatment of infection.

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Diarrhoeic faecal samples from 210 humans and 192 swine were screened for Yersinia enterocolitica in 1990. Ten and 8 Y. enterocolitica isolates were isolated from pig and man, respectively. The isolates were found to belong to Wauter’s biotypes 1, 2, 3 and 4. Biotype 2 was isolated mainly from human stool samples. Biotype 3 was found only in swine while biotypes 1 and 4 were isolated from both man and swine.

All 18 strains showed varying degrees of sensitivity to antibiotics used in this investigation. The organisms were consistent in their resistance to ampicillin and penicillin. Key words: Yersinia enterocolitica - Biotype - Man - Swine - Faecal sample - Antibiotic sensitivity - Nigeria.
References


