

Communication

With the exception of erythritol which was weak, with rough colonies, both rough and smooth types of colonies of *A. propionica* gave similar biochemical results.

Discussion

Actinomycosis in cattle is routinely diagnosed to be caused by *Actinomyces bovis*. However, other organisms may be involved in extensive lesions (1). *Arachnia propionica* apparently does not occur in animals (5) and its presence in veterinary literature is extremely rare. The present case was clinically diagnosed as a typical case of actinomycosis. The isolation of *A. propionica* suggests a possible aetiology for actinomycosis.

The major amino acids in the cell wall of the isolated *A. propionica* were : alanine, glutamic acid, glycine and LL diaminopimelic acid. Such characters which distinguish *A. propionica* from *actinomyces* spp. are unlikely to be looked for or detected in a routine microbiological laboratory ; this is unfortunate as in this case *A. propionica* was isolated from a case clinically typical for actinomycosis (3) ; the present case is a similar one. We wonder how many cases of "lumpy-jaw" in cattle were attributed to *A. bovis*, while the aetiological agent was simply *A. propionica*. On the other hand, *A. propionica* causes lacrimal canaliculitis in man and thus its presence in cattle might equally cause human hazards. The need is urgent for simple tests that can differentiate between *A. bovis* and *A. propionica* and which can be conducted by routine medical laboratories.

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EL-SANOUSI (S.M.), AL-DUGHYEM (A.), RAMADAN (R.O.). Aetiology of an actinomycosis-like abscess in cattle. *Revue Elev. Méd. vét. Pays trop.*, 1991, 44 (2) : 159-160

Arachnia propionica was isolated from an abscess resembling actinomycosis in a four-year-old crossbred cow. The properties of the organism were described in comparison with closely related organisms. *Key words* : *Arachnia propionica* - Cattle - Actinomycosis - Aetiology - Saudi Arabia.

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Isolation of *Corynebacterium renale* from slaughtered cattle at the Zaria abattoir in Nigeria

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FATIHU (M.Y.), ADDO (P.B.). Isolement de *Corynebacterium renale* sur des bovins provenant de l'abattoir de Zaria au Nigeria. *Revue Elev. Méd. vét. Pays trop.*, 1991, 44 (2) : 160-161

Quarante vessies ont été collectées à l'abattoir de Zaria sur des bovins apparemment en bonne santé : 24, soit 60 p. 100, provenaient de mâles et 16, soit 40 p. 100, de femelles. Des échantillons d'urine ont été prélevés et mis en culture pour la recherche de *Corynebacterium renale*. Quatre échantillons chez les mâles et un chez les femelles ont été trouvés positifs. La différence entre les sexes était statistiquement significative pour $P < 0,001$. *Mots clés* : Bovin abattu - Prélèvement - Urine - Vessie - *Corynebacterium renale* - Nigeria.

Introduction

Corynebacterium renale is the aetiological agent of contagious bovine pyelonephritis which primarily occurs in cattle (2). The organism has also been isolated from animals like horses (3), sheep (6) and dogs (9). Laboratory animals such as rabbits and mice have been infected experimentally by the organism (7, 8). There are few reports on *C. renale* in Nigeria (1). The present study was conducted to determine the prevalence of *C. renale* in apparently healthy slaughtered cattle.

Materials and Methods

A total of 40 urinary bladder samples were obtained from cattle slaughtered at the Zaria abattoir. Out of these, 24 were from males and 16 from females. The urinary bladders were tied to retain the urine and each was wrapped in a polyethylene bag and carried to the laboratory in a cold recipient.

In the laboratory, urine was aspirated from the urinary bladders using sterile syringes and needles, after disinfection of the sites of puncture. The urine samples obtained was poured into sterile-capped centrifugation tubes and centrifuged at 2.000 rpm for 10 min. The urinary sediments obtained after discarding the supernatant solution was inoculated on blood agar (BA) and phenyl-ethyl-alcohol agar (PEA). The plates were incubated at 37 °C for 24-48 h.

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Plates were examined for characteristic colonies of *C. renale*. Pure colonies were obtained by subculturing on BA plates. Smears from the growths were stained by the Gram technique for identification of cellular morphologies. *C. renale* was identified as described elsewhere (4, 5).

Results and discussion

Out of the 40 urinary bladder urine samples examined *C. renale* was isolated from 5 (12.5 %) of the samples. Of the 24 samples from the males, 4 (16.7 %) were positive and among the 16 female samples, 1 (6.3 %) was positive. The difference in the infection between the male and female cattle was statistically significant ($P < 0.001$).

Corynebacterium renale has been isolated from both apparently healthy cows and from cows showing signs of pyelonephritis in other parts of the world. The isolation of *C. renale* from an infected kidney and some urine samples in cattle (1) and from urinary bladder samples of cattle in this study shows that the organism is not restricted to temperate zones. Although *C. renale* infection is more common in female cattle than in males (3), this study has shown that males can also be infected to some extent.

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Forty urinary bladders were collected from apparently healthy cattle slaughtered at the Zaria abattoir. Twenty-four (60 %) were from male animals and 16 (40 %) from females. Urine samples were obtained and cultured for *Corynebacterium renale*. Four (16.7 %) of the samples from males and 1 (6.3 %) from females were positive. The difference in infection between the sexes was statistically significant ($P < 0.001$). *Key words* : Slaughtered cattle - Urine sample - *Corynebacterium renale* - Nigeria.

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Association of *Klebsiella* organisms with pulmonary lesions in sheep

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GAMEEL (A.A.), EL-SANOUSI (S.M.), AL-NAWAWI (F.), AL-SHAZLY (M.O.). Association de *Klebsiella* avec des lésions pulmonaires chez le mouton. *Revue Élev. Méd. vét. Pays trop.*, 1991, **44** (2) : 161-164

De petits nodules ont été vus sur la paroi thoracique et les poumons de moutons provenant de l'abattoir d'Al-Ahsa en Arabie Saoudite. *Klebsiella pneumoniae*, sous-espèce *ozaenae*, a été isolée et identifiée. L'histopathologie des nodules est décrite. *Mots-clés* : Mouton - *Klebsiella* - Lésion pulmonaire - Isolement - Identification - Arabie Saoudite.

Introduction

Klebsiella organisms can be found as saprophytes in soil and water and in the genital, respiratory and digestive tract of healthy animals (2, 4, 10). It has been stated as a cause of contagious metritis, abortion and sterility in equines (6, 9, 16, 17) and mastitis in cattle (14, 18, 19). It has also been isolated from cases of diarrhoea and suppurative lesions in foals (7, 12), pneumonia in goats (8), gangrenous mastitis in ewes (11), diarrhoea and urinary tract infections in dogs (5, 13, 15) and metritis and mastitis in pigs (2).

The present communication describes pulmonary lesions caused by *Klebsiella* organisms in sheep slaughtered at the Al-Ahsa abattoir, Saudi Arabia.

Materials and Methods

Small nodules were occasionally seen on the chest wall and in the lungs of sheep slaughtered at the Al-Ahsa abattoir, Saudi Arabia. These were associated with pleural adhesions, adhesions between lungs and diaphragm and enlargement of regional lymph nodes. The lesions were examined and samples from lungs and mediastinal lymph nodes were fixed in 10 % formalin for histopathology. Representative samples were taken for bacteriology. The present study was based on six cases.

Pathological methods

Tissue samples were processed in paraffin and sections stained with haematoxylin and eosin (HE), Ziehl-Neelsen (ZN) stain and periodic acid schiff method (PAS).

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