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Letter to Editor

CONSTRAINTS OF BLACKLEG CONTROL IN NIGERIA

N. M. Useh

Department of Veterinary Pathology and Microbiology, Faculty of Veterinary Medicine, Ahmadu Bello University, Zaria, Nigeria

E-mail: nickuseh@yahoo.com

Sir, blackleg (also known as symptomatic anthrax, blackquarter or emphysematous gangrene) is a disease of cattle, sheep and other ruminants (1). In Nigeria, the disease was first reported in 1929 and has remained a major problem of cattle in the country (2). Infective spores of *Clostridium chauvoei* ingested during grazing are lodged in the gastrointestinal tract (GIT), livers and spleens of healthy cattle (3) and remain latent until their germination is triggered by punctured wounds (4). During growth, the organism is known to produce neuraminidase (sialidase), an enzyme that plays a key role in the pathogenesis of blackleg (5). Although Agba and Princewill (1986) (6) put the economic losses of cattle due to blackleg in Nigeria at less than a million United States Dollars (USD) annually, the current losses to the disease may approximate about 4.3 million USD annually (7). This is because of increased annual outbreaks over the years and the deregulation of Nigeria's economy. This letter to the Editor highlights the constraints associated with the control of blackleg of cattle in Nigeria and the possible ways of ameliorating the constraints.

The nomadic Fulani pastoralists of rural Nigeria, who own about 70-80% of livestock in the country, migrate from one place to another in search of grazing pasture for their livestock (8). It therefore follows that as they migrate, they encounter soils with high proportion of clostridial spores that constitute a health hazard. It is common knowledge that the best control strategy against blackleg is vaccination (9). Most times, potent vaccines are difficult to come by in Nigeria, because of the inability to maintain the cold chain. The nomads a times purchase the vaccines on their own from veterinary shops, without any machinery in place to maintain the cold chain. This practice has made it difficult to effectively control the disease in Nigeria. In line with this, therefore, some state governments in Nigeria do not vaccinate animals routinely against blackleg, because the nomads do not request for it, except in times of disease outbreaks. Even in the face of outbreaks, the attitude of the nomads in the control of disease spread to neighbouring herds leaves much to be desired. They do not report the outbreaks and may chose to move away from the area.

The drug of choice for treating blackleg is penicillin (7) but the nomads prefer the use of herbal remedies to treat the disease. They may report outbreaks to veterinarians and government officials only if the herbal remedies do not achieve the desired therapeutic results, accompanied by an upsurge of mortality which they can not control. Two herbal remedies (*Tamarindus indicus* and *Combretum fragrans*) are preferred to penicillin by the nomads for treating blackleg (10). The side effects of herbal preparations have been identified and they include: inappropriate dosing (11), intoxication leading to death of treated animals (12) or the problem of partial efficacy associated with some herbal remedies (13).

The control of blackleg has remained a major problem in Nigeria, since the nomads of rural Nigeria who are key players in the livestock industry are not settled and continue to move from one *Clostridium* infected soil to the other in search of grazing pasture. It is recommended that animal ranches (settled farms) should be established in areas free of clostridial spores. This is because of the danger posed by this on the health of animals and the role of the spores in the pathogenesis of blackleg. To effectively control the disease in cattle, vaccination of the animals using potent vaccines has been advocated. It is concluded that, while government should be prevailed upon to revive the available grazing reserves to settle the Fulanis, there is the need to encourage the use of the herbal remedies, as they are cheaper, effective and available in Nigeria. Research should be conducted to establish the dosage regiments, therapeutic index and side effects of these herbs.

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