RABIES IN A TWO-WEEK OLD CALF NEAR KAMPALA A CASE REPORT

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1 INTRODUCTION.

Rabies is a contagious rhabdoviral infection of all warm blooded animals affecting the central nervous system and salivary glands. Transmission is usually through the bite of a rabid animal via saliva rich in virus. The incubation period varies inversely with the proximity of bite to the central system, but has been reported as varying from 21-80 days in dogs to up to 209 days in horses and cattle. However in laboratory infections in cattle rabies has been known to occur within 21 days. It is widely held that Bos taurus breeds succumb faster to rabies than Bos indicus breeds. Furthermore young animals are more susceptible than adults. The clinical disease first manifests as change in natural behaviour, excessive salivation, excitability and mania and ends in motor paralysis and death. In man and cattle mortality is 100%.

According to the region and the biotype of the virus, dogs, foxes (arctic and red foxes), bats are reservoir of the virus. Cattle and man get infected through bites from rabid animals.

2 CASE HISTORY.

The present case was a female calf born on 29th January 1998 that was attacked by a stray dog 2 days after birth. The dog was reportedly chased off by the dam (a local zebu cow) when the dog entered the kraal/shed at night. The dog mysteriously died after about four days from that incidence. The calf started showing inability to suckle on 8th February 1998, when a veterinarian was called in. But its condition progressively deteriorated. The Ambulatory clinic of Faculty of Veterinary Medicine was called in on 18th February 1998 and the clinician diagnosed rabies. The following day, the calf was euthanased and the head submitted for histopathological diagnosis to the pathology department in the veterinary faculty.

3 CLINICAL MANIFESTATION.

Clinical manifestation was first noted on 8th February 1998, with drooling of saliva and inability to suckle. The calf developed hoarse bellowing with extended neck. Salivation became more profuse and frothy at the mouth (Photograph 1). The calf would charge and make aggressive postures and fall down. There was incoordination of the gait in the hind legs with knuckling. These signs steadily grew in intensity each day.

By 19th February 1998 the calf had lost the anal sphincter reflex and there was total incoordination of hind legs (Photograph 2). Because it posed a danger to its dam, the milker and the other people at home, the calf was euthanased and the head submitted to the histopathological laboratory. The laboratory showed severe perivascular cuffing in some parts of the brain. Negri bodies were seen in Purkinje cells and in neurons of the hippocampus. Based on these histopathological findings, a confirmatory diagnosis of rabies was made.

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4 DISCUSSION AND CONCLUSION.

The occurrence of clinical rabies in a 2 week old calf was rather unusual for in this case the incubation period was only eight days. A case of rabies has never been reported in the faculty of veterinary medicine Makerere University involving a four week old puppy. Unlike the widely held view that *Bos indicus* breeds do not quickly succumb to rabies, this case was unique in that though it was a zebu, it came down with clinical rabies within only eight days.

Rabies is a rapidly fatal disease threatening livestock and human beings country wide; it has become one of the most serious zoonoses in Uganda. Livestock farming in Uganda revolves around cows. This serves to remind the farming community, that rabies is a zoonotic, highly fatal infection that can be acquired through contact with saliva of rabid animals. Calves are fond of licking farmers and animal attendants. Therefore, current vaccination campaigns that ordinarily target dogs should also include cows and other livestock.

**Figure 1**: Clinical signs of rabies, note the alert facial expression, the drooling of saliva and erect ears.

**Figure 2**: Clinical signs of rabies, incoordination in hind limbs, inability to swallow pieces of grass stuck in the mouth.