



## Paralytic Cattle Syndrome: causes and treatments in Mali

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### Abstract

A study was conducted between 1999 and 2005 to understand cattle paralytic syndrome causes, which are of great concerns for breeders in the Sahelian and sub humid areas of Mali and to find ways of combating it. Survey was carried out in the regions of Kayes, Koulikoro, Sikasso, Timbuktu and Gao, where 29 samples of fodder and 415 of

blood were taken. The plasma was extracted by centrifugation at 3000 rpm for 10 minutes. Dry matter, crude protein, organic matter, cellulose, phosphorus, calcium, potassium, magnesium, sodium, zinc, copper, manganese and iron were determinate in the fodder, and total protein, albumin, total globulin, Alpha, Beta and Gamma globulin, globulin / albumin ratio, calcium, phosphorus, magnesium, zinc and copper in the plasma samples. Then, a treatment trial was conducted in three areas with veterinary drugs: calcimag, hipracal-FM, and cofacalcium at doses of 5 ml / 10 kg bodyweight at one day apart and 1 ml / kg bodyweight three days apart. Fodder had low levels of crude protein ( $4.5 \pm 0.62\%$ ), calcium ( $0.3 \pm 0.03\%$ ), phosphorus ( $0.1 \pm 0.01\%$ ) and magnesium ( $0.3 \pm 0.02\%$ ). Biochemical parameters were statistically the same in all animals regardless of the clinical state with the exception of calcium, which was lower (2.25 mmol / l) in patients versus 2.67 mmol/l in the healthy ( $p = 0.028$ ). Animals treated with the licking stone were 100% healed, while with injectable drugs, the healing rate varied between 73% and 86%, compared to 1% in the control group. The cost of treatment varied between 5.72 and 2.42 US dollars depending on drug and doses. These results are being used by extension services in the study areas.

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