

**OCCURRENCE OF *Clostridium botulinum* SPORES AND TYPES C AND D TOXIN IN CATTLE FARMS IN THE ARAGUAIA VALLEY**

*(OCORRÊNCIA DE ESPOROS E TOXINAS DE Clostridium botulinum TIPOS C E D EM CRIATÓRIOS DE BOVINOS NO VALE DO ARAGUAIA)*

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Beef cattle farming are the main economic activity in the Araguaia Valley, in the state of Goiás. Because there are few natural water sources, artificial water reservoirs (known as "cacimbas") were built to provide water to the animals. Under certain circumstances, there is an accumulation of organic matter in these reservoirs, which originate mainly from cattle feces. In recent years, a disease commonly known as the "Mal das Cacimbas" has been reported in the region (Souza et al., 1997). The epidemiological, clinic-pathological and laboratory characteristics showed that it is botulism, caused by the ingestion of toxins C and D that are present in the contaminated water from the reservoir (Dutra et al., 2001). In order to verify the occurrence of *Clostridium botulinum* types C and D in the artificial water reservoirs of the Araguaia Valley, a study was conducted in 300 reservoirs of 130 farms in 12 counties. Of these, 75% were 15 years old or less. We used the gold-standard technique of serum-neutralization in mice to analyze sediment samples of the water reservoirs. Of the 300 samples tested 30 (10.00%) were positive for spores, of which 6 were Type C; 8, Type D; and 16, belonged to the CD complex. This result shows that between 6.6 % and 13.4 % of the samples contained spores (95% CI, 0.006 <math>p < 0.134</math>). Regarding toxin, 6 ( 2.00% ) of the samples were positive, of which one was type C; one, type D; and 4 belonged to the CD complex. Between 0.4% and 3.6% (95% CI) of sediment samples presented some type of toxin. The detection of toxins and spores of *Clostridium botulinum*, mainly in the older water reservoirs of the Araguaia Valley, which accumulate more organic matter, demonstrates favorable conditions and potential risk for the occurrence of botulism in cattle. This potential risk shows the need to change the water supply system for the watering of animals.

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