

Clinical evaluation of the use of enrofloxacin against *Staphylococcus aureus* clinical mastitis in sheep

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The aims of this work were to evaluate the potential role of enrofloxacin in controlling the severity of the clinical mastitis in sheep caused by *Staphylococcus aureus*; to improve cure rates and to minimize the related effects of the disease on the mammary glands. This study was conducted in commercial dairy flocks, where there was ongoing intensive monitoring of subclinical mastitis by Somatic Cell Count (SCC) and bacteriology. Two groups of animals were selected from these flocks. Group A (n=34 animals) and Group B (n=39 animals) were treated with 2.5 mg/kg bw and 5 mg/kg bw, respectively of enrofloxacin (Baytril®5% injectable solution, Bayer, Italy) for three consecutive days (two doses per day). The effectiveness of the enrofloxacin in curing the *S. aureus*-induced clinical mastitis was monitored through SCC, rectal temperature, and by systemic and local mammary gland reactions from the 1st to the 14th day post treatment. The presence of *S. aureus* in milk samples was confirmed by bacteriological examination and PCR before and after treatment. Bacteriological cure was 39% in Group A and 82% in Group B. Both doses significantly reduced SCC ($P<0.001$), while the reduction in Group B was also significantly higher than Group A. Mean rectal temperature as well as local mammary gland and systemic reactions, also decreased significantly in both groups ($P<0.001$). In conclusion, both enrofloxacin concentrations provide bacteriological cure but the higher concentration resulted in greater reduction of clinical mastitis in sheep caused by *S. aureus*.

Biography

Victor Ngu Ngwa has completed his PhD from the University of Camerino School of Biosciences and Veterinary Medicine, Italy, and MSc (Pathology) from the Swedish University of Agricultural Sciences, Uppsala. He is a Senior Lecturer and the current Head of Microbiology and Infectious Diseases Department of the University of Ngaoundere School of Veterinary Medicine and Sciences. He has published more than 16 papers in reputed journals and has been serving as a reviewer in quite a number of peer-reviewed journals.

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