

CLINICAL AND ELECTROCARDIOGRAPHIC STUDY OF ANTIBIOTICS ADMINISTRATION VIA LIMB VEINS

Tabatabaei Naeni, A.; Seyedi, A.

School of Vet.Med, Shiraz University, Shiraz, Iran. tabatabaei_a@yahoo.com

Abstract:

Lameness and lesion of limb are most important problems in ruminants. Evidence shows that regional administration of antibiotics via limb veins has good effects for treatment of disorders in ruminants. The purpose of this study was to evaluate clinical response and electrocardiographic changes to regional administration of antibiotics via limb veins. For this study 10 clinically healthy male and female calves with 4-6 month age and 130-170 kg body weight were chosen. Each calve received 7 injections of antibiotics. Period between these injections was 7 days. First injection included normal saline injected via dorsal metacarpal vein (Group 1). The second, third and fourth injections included Gentamycin sulfate, Penicillin G-K and Pantrisol administered via dorsal metacarpal vein. (Groups II, III, IV). In each case body temperature, HR, RR and CRT were determined and ECG was taken before and immediately after injection, before and 0, 30, 60 min after tourniquet releasing. Fifth, sixth and seventh injections included Pantrisol, Penicillin G-K and Gentamycin sulfate administered via jugular vein (Group V, VI, VII). Vital signs were determined and ECG was taken before injections and 0, 20, 30, 60 min after injections. In some groups vital signs such as HR, RR and body temperature increased at first minute following injection and tourniquet releasing. Stress of injection and drug abrupt releasing in circulatory system are two factors that can produce this increase. The method of antibiotic administration that used in this had no side effects on vital signs and ECG parameters. The results of this study showed that limb intravenous regional antibiotic administration is one of the useful, safe and economical methods in treatment of lesions of limb in ruminants.