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DOMOSEDAN* (DETOMIDINE HCl) SEDATION AND ANALGESIA IN EGYPTIAN BUFFALOES

By

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SUMMARY

Detomidine Hcl, the sedative and analgesic, was tried on 15 Egyptian buffaloes. The sedative and analgesic properties were studied using different dose rates (20, 30, 40, 50 and 60 µg/kg) intramuscularly. The onset and duration of the drug's action were recorded. The parameters of physiological functions (body temperature, heart rate, respiratory rate and ruminal motility) were investigated. The sedative effect of Detomidine was demonstrated with lower doses (20 and 30 µg/kg bwt), while analgesia was achieved with higher doses (40, 50 and 60 µg/kg bwt). The standing capacity of buffaloes had not been influenced by Detomidine even with higher doses. Detomidine induced hyperthermia, bradycardia, slight increase of respiratory rate and very mild and transient effect on the ruminal motility in buffaloes. The haematological and blood serum biochemical measurements of certain values concerning the liver and kidney functions showed no significant changes.

INTRODUCTION

Detomidine HCl is a potent α2-adrenoreceptors (Virtanen, 1986) which is used as a sedative and analgesic in horses (Clark and Taylor, 1986 and Mari and Katila, 1988), in donkeys (Mostafa et al., 1992) and in cattle (Garcia et al., 1989 and Gordini et al., 1992).

Buffaloes in Egypt occupy an esteemed position among farm animals. The vicious and indocile temperament of buffaloes render the veterinarians to look always for pharmacological means for security i.e the sedative and analgesic drugs, to deal with such species of animal.

Therefore, the aim of this work is to evaluate the sedative and analgesic effects of Detomidine HCl in buffaloes regarding dosage, clinical effects, haematological effects and some serum biochemical values of certain vital physiological organs which are of clinical interest.

MATERIAL and METHODS

Three buffaloes (2 females and one male) aged 3-9 years and weighting 250-550 kg were used in this work. These buffaloes were clinically healthy. Five trials were conducted on each animal with a minimum of 2 weeks intervals. The buffaloes were assigned into 5 groups. Detomidine HCl (10 mg/ml) solution was administered intramuscularly to five groups of 3 individuals as follows:

Group 1 received Detomodine 20 µg/kg. bwt i.m.
Group 2 received Detomodine 30 µg/kg. bwt i.m.
Group 3 received Detomodine 40 µg/kg. bwt i.m.
Group 4 received Detomodine 50 µg/kg. bwt i.m.
Group 5 received Detomodine 60 µg/kg. bwt i.m.

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* Domosedan, developed and manufactered by Farmos Group Ltd. Turku, Finland.
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