EQUIMIDINA

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SAFE PROCEDURES WITH EQUIMIDINA

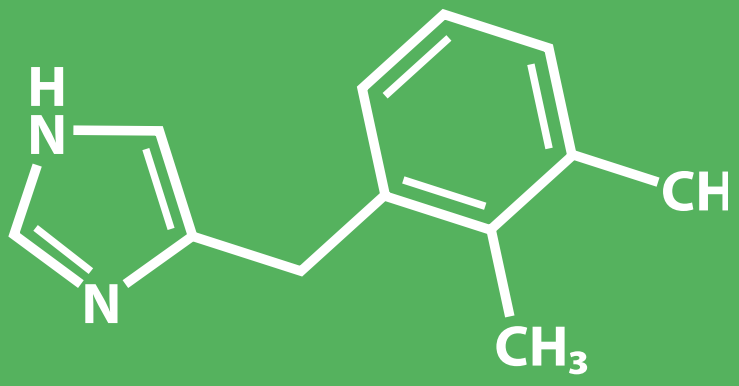
EQUIMIDINA is a safe sedative and analgesic prescribed for minor procedures and surgeries, and also as anesthetic premedication.

EQUIMIDINA

Its active ingredient, DETOMIDINE, is an alpha 2 adrenergic agonist drug with central effect that inhibits the transmission of nervous impulses mediated by noradrenaline. In comparison to xylazine, detomidine presents higher specificity on α-2 receptors, with α-2/α-1 selectivity ratio of 260/1 (Lukasik, 1999). This highly superior power improves the pre-surgical condition of patients as better effects are attained. Also, its administration is easier as the volume to be applied is lower.

Information about the detomidine molecule

It is a slightly basic lipophilic imidazole derivative.
Its chemical structure is hydrochloride
4-(2,3-dimethylbenzyl) imidazole.



Evaluation of clinical effects of an injectable formulation of Detomidine in equines

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Introduction: detomidine is an α2 adrenergic agonist. The sedative effects exceed approximately 10 times those of xylazine (Daunt, 1995). Lower intravenous doses of detomidine (0.005 to 0.01 mg/kg) produce degrees of sedation and analgesia similar to the standard dose of xylazine (1.1 mg/kg) as regards efficacy and duration. Higher doses of detomidine (0.02 to 0.16 mg/kg) provide deeper sedation and analgesia and better duration *(Lowe and Hilfiger, 1986).* This comparative effect with xylazine is due to the higher affinity to α2 adrenergic receptors *(Muir et al., 2001).*
Jochle et al. (1989) observed a more effective analgesic effect on horses with colics, in comparison to the effects of xylazine, butorphanol and flunixin meglumine.

Objective: The study was intended to measure the clinical effects after intravenous administration of two different doses of detomidine hydrochloride. The evaluated parameters were the degree of sedation, responses to stimuli, degree of ataxia, intestinal motility, heart and respiratory rates, occurrence of undesired collateral effects.

Materials and methods: 18 half-breed equines were used, of both sexes, aged between 5 and 12 years. They were divided into three groups.

Group A: six (6) equines treated by intravenous route with a dose of 0.02 mg/kg.

Group B: six (6) equines treated by intravenous route with a dose of 0.03 mg/kg.

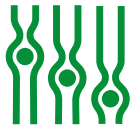
Group C: six (6) equines to which only the excipient solution was applied intravenously, by means of a slow injection in the left jugular vein.

The observations of the experimental groups were carried out according to the following scheme:
Before the treatment: 10 minutes.
After the treatment: 10, 20, 30, 40, 50, 60, 90, 120 and 180 minutes.
Results: The sedation effects at doses of 0.02 mg/k.l.w. were from mild to moderate and were maintained, in average, for 60 minutes. Additionally, at a dose of 0.03 mg/k.l.w. all patients showed moderate sedation.

All variables, which are mentioned below, significantly decreased when comparing the effects to pre-treatment and to post-treatment.

Heart rate: this variable presented significant differences until minute 50.

Respiratory rate: at a dose of 0.02 mg/k.l.w. significant differences were observed until minute 70, while at doses of 0.03 mg/k.l.w. significant differences were observed until minute 120.



Intestinal motility: the differences between initial values (before treatment) and post-treatment were significantly different until minute 90 and 180 for doses of 0.02 mg/k.l.w. and of 0.03 mg/k.l.w., respectively.

Responses to stimuli: At doses of 0.02 mg/k.l.w. and 0.03 mg/ k.l.w., a decrease in the responses to stimuli was verified, which was maintained, in average, until minute 50.

Ataxia: this clinical sign was maintained until minute 50 for both experimental doses.

CONCLUSIONS: The results obtained under the experimental conditions are consistent with those expected for detomidine. It is worth noting, furthermore, that no undesired secondary effects were observed.

EQUIMIDINA

DESCRIPTION: Sedante. Analgésico. Tranquilizante.
PHARMACEUTICAL FORM: Injectable solution.
FORMULATION: Each 100 ml contain:
Detomidine hydrochloride .....1.00 g
Formulation agents.....q.s.

INDICATIONS: Indicated for sedation and analgesia in equines facilitating their immobilization, clinical explorations such as: endoscopy, nasogastric tubes, rectal palpation, gynecological examinations, X-rays. Minor surgeries such as removal of skin tumors, wounds, dental treatments. It is also used as premedication in anesthetic treatments.

INTENDED FOR SPECIES: Sports equines.
DOSAGE: dosing is 0.02 mg/kg to 0.03 mg/kg, which equals to 0.2 ml to 0.3 ml every 100 kg respectively.

DOSAGE CHART:

Animal weight *(kg)*	Dose *(ml per animal)*
100	0.2 – 0.3
200	0.4 – 0.6
300	0.6 – 0.9
400	0.8 – 1.2
500	1 – 1.5

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