

Abstract

Objective- The aim of this study was to evaluate clinically localized or systemic effects of epidural injections of MgSO₄ alone and in combination with xylazine in dogs.

Design- Experimental study

Animals- Six healthy mixed breed dogs.

Procedures- The experiments were performed crossover method. After administration of the 1 ml lidocaine 2% under the skin of lumbosacral region for local anesthesia, 10 mg/kg of Mgso₄ 20%, 0.3 mg/kg of Xylazine 2% and combination of Mgso₄-xylazine were administration with doses mentioned in three groups. The Respiratory rate, heart rate, rectal temperature, reaction to pain, sedation and motor block were recorded prior and after (5, 10, 15, 20, 30, 40, 50, 60, 90 and 120 minutes) epidural injection.

Results- There were No statistically significant difference in mean respiratory rate, heart rate and rectal temperature (p-value>0.05); but showed significant differences in heart rate at 30 and 40 Minutes in groups (p-value<0.05). significant differences in response to pain in minutes 10, 15, 20, 30, 40, 50, 60 and 90 minutes, For sedation at 15, 20, 30, 40 and 50, to motor block in minutes 10, 15, 20, 30, 40 and 50, there was After epidural Administration between different groups; There was no significant difference in other times.

Conclusion and clinical relevance- Epidural administration the combination of MgSO₄-xylazine is appropriate for pain management in surgery of the lower limbs to provide enough time to do Surgery that need more time.

Key words: MgSO₄, Xylazine, Epidural, Dog.



University of Zabol
Graduate School
Faculty of Veterinary Medicine
Department of Clinical Science

The Thesis Submitted for the Degree of DVM

Clinical evaluation of epidural injection of MgSO₄ and Xylazine in dog

Supervisor:
Dr. Mohammad Reza Aghchelou

Advisor:
Dr. Dariush Saadati

By:
Saeed Rezaei

Septambr 2016