

Clinical evaluation of oral administration of ketamine with acepromazine or midazolam in cats: a preliminary study

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Abstract

There are a variety of methods to induce anesthesia in animals. Oral anesthetic drugs are suitable for short-term restraint in most healthy animals. The aim of the present study was a comparative evaluation of the effects of anesthetic drugs ketamine, ketamine with acepromazine or midazolam as oral on vital signs, anesthesia duration, and neural reflexes in the cat. This study was performed on fifteen clinically healthy adult cats that were categorized into three equal groups A (alone ketamine), B (ketamine with acepromazine), and C (ketamine with midazolam). In group A; ketamine was administered with a dosage 80 mg/kg oral once. In group B; first acepromazine was given 0.15 mg/kg and after thirty-minute, ketamine was given to cats. Group C was similar to group B; with the difference that midazolam was administered 0.3 mg/kg instead of acepromazine. Group B had the lowest fluctuations in heart rate and group C was better for the influence on temperature and respiratory. There were no significant variations for neural reflexes; however, there was a significant difference for anesthesia duration between groups B (37.2 minutes), and C (37.4) with group A (26). Induction of anesthesia was better in groups B (14.6 ± 1.4 minutes), and C (15.6 ± 1.14) compared with group A (20 ± 2.34). The time of first voluntary movement was recorded in minutes of 38.2 ± 2.38 , 43 ± 2.43 , and 44.8 ± 3.27 for groups A, B, and C respectively. The oral administration of ketamine with midazolam or acepromazine is a better method than alone ketamine for induction of anesthesia in cats, because of the longer anesthesia duration and fewer muscle tremors.

Keywords: Acepromazine, Cat, Ketamine, Midazolam, Oral administration

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