

# Evaluation Verapamil-Ketamine combination on some cardiopulmonary parameters in dogs

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## Abstract

To evaluate the effects of Verapamil- Ketamine combination on heart rate, respiratory rate, body temperature, arterial blood pressure, blood gases and arterial blood pH, five apparently healthy mongrel dogs, three males and two females, weighing 15-20 kg and age between 1.5-2 years old were selected. Verapamil (0.3 mg/kg, IV) was injected 10 minutes prior to ketamine administration (15 mg/kg, IV). All arterial blood samples were taken from left femoral artery before verapamil administration and were repeated at 5, 15, 30 and 45 minutes intervals after induction of anesthesia with ketamine. In all animals the anesthesia and recovery were uneventful. The heart rate increased significantly at all times after anesthesia. PaO<sub>2</sub> and mean arterial blood pressure decreased and PaCO<sub>2</sub> increased significantly at 5 minutes and pH values declined at 5 and 15 minutes after anesthesia. Respiratory rate and body temperature did not reveal any statistically significant changes. On the basis of these results can be concluded all statistically changes in regard to PaO<sub>2</sub>, PaCO<sub>2</sub> and blood pH were transient and use of a ventilator and supplementary oxygen would be useful in preventing them, however, before introducing of this combination in dogs, further research is recommended.

**Key words:** Ketamine, Verapamil, Anesthesia, Heart, Dog

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