Evaluation of isoflurane anesthesia after xylazine/ketamine administration in dromedary camels

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Abstract:

The objective of this study was to evaluate isoflurane after premedication with xylazine and induction with ketamine in camels. Six healthy adult female dromedary camels were premedicated with xylazine (0.2 mg/kg, IV). Twenty minutes later, anesthesia was induced with ketamine (2 mg/kg, IV) and was maintained with isoflurane in 100% oxygen. Onset and duration of anesthesia were recorded. Rectal temperature, respiratory rate, heart rate, oxygen hemoglobin saturation, and blood pressure were measured before and 20 min after xylazine administration and every 10 min thereafter until recovery. Lead II electrocardiogram was used to monitor camels for the presence of arrhythmias. Venous and arterial blood samples were taken for hematological examination and blood gases and pH, respectively. The results are thought to be the first detailed evaluation of isoflurane anesthesia in dromedary camels. Significant decrease in heart rate after xylazine/ketamine administration and significant decreases in rectal temperature and arterial blood pressure were recorded in camels during isoflurane administration. However, percentage of oxygen hemoglobin saturation significantly increased with significant changes in complete blood count and minor changes in arterial pH, PCO2, and PO2 during the study. The quality of anesthesia and recovery was good to excellent. In conclusion, isoflurane resulted in smooth recovery without complications and can be considered a good inhalation anesthetic for camels.

Keywords:

Anesthesia, camel, inhalation, isoflurane, ketamine

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