Evaluation of halothane anesthesia after xylazine/ketamine administration in dromedary camels (Camelus dromedarius)


Abstract:

Objective was to evaluate halothane as an inhalation anaesthetic after premedication with xylazine and induction with ketamine in camels. Six healthy, adult female dromedary camels were used as prospective controlled study. Camels were premedicated with xylazine (0.2 mg/kg, IV). Twenty minutes later, anaesthesia was induced with ketamine (2 mg/kg, IV) and was maintained with halothane in 100% oxygen. Onset and duration of anaesthesia were recorded. Rectal temperature, respiratory rate, heart rate, oxygen haemoglobin saturation, and systolic, diastolic, and mean arterial blood pressure were measured before and 20 min after administration of xylazine and then every 10 min until recovery. Lead II electrocardiogram was used to constantly monitor camels for presence of arrhythmias. Depth of anaesthesia was determined by recording reflexes. Venous and arterial blood samples were taken for haematological examination and blood gases and pH, respectively, at the same intervals. Results revealed a significant decrease in respiratory rate after xylazine and ketamine administration and significant decrease in rectal temperature and arterial blood pressure during halothane anaesthesia. A noticeable increase in the heart and respiratory rates was observed during halothane anaesthesia if compared to xylazine/ketamine values. However, the percentage of oxygen haemoglobin saturation and arterial pO2 increased significantly with significant decrease in arterial pH during halothane anaesthesia. There were non-significant changes in the CBC values. The quality of anaesthesia was good in the majority of camels and recovery ranged from marginal to excellent. In conclusions, halothane resulted in good maintenance of anaesthesia and marginal to excellent recovery in dromedary camels. Precautions should be taken to avoid ruminal regurgitation. Oxygen administration is recommended during early recovery.

Keywords:

Anaesthesia, camel, inhalation, halothane, ketamine

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