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Comparison between three different anesthetic protocols for electroejaculation in cats: a preliminary study
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The electroejaculation (EE) is one of the techniques described for obtaining semen in cats and require anesthesia of the patient. It is necessary to establish cost, efficient, practical and safe protocols for pharmacological containing, which also entail minimal seminal contamination. The success of semen collection in felines by EE depends on the combination of multiple factors. It was used eighteen males cats (n = 18), healthy, weighing 4.1 ± 1.3 kg, adults, randomly allocated into three groups according to the anesthetic protocols: A: ketamine (12mg / kg) associated with xylazine (0.8mg / kg) intramuscularly; B: ketamine (12mg / kg) associated with midazolam (0.3mg / kg) intramuscularly; and C: ketamine (12mg / kg) associated with medetomidine (30μg / kg) intramuscularly. In all treatments, when the animals presented nociception signals and anesthesia of superficiality, additional doses of ketamine were administered (4 mg / kg - intravenously). After induction, penile exhibition was held, made uteretal catheterization catheter 24G coupled to a polypropylene microtube and introduced the rectal probe to start stimuli. The total sequence of stimuli was divided into three series of 30 stimuli, with an interval of 5 minutes, and each series was divided into three subsets, with increasing stimuli. After the end of the series and the end of the EE the animal was kept in recovery room and ejaculate sent for analysis. Heart and respiratory rate, temperature and systolic blood pressure were monitored. anesthetic variables and sperm quality were evaluated. The procedure duration was between 35 to 55 minutes, with no difference between treatments. Group A presented higher percentage of animals with ejaculation front to stimuli. Group C showed higher ejaculate volume compared to the other two (A and B). Groups A and B presented higher sperm motility and spermatic kinetic than group C. Group C showed lower contamination urine (16.7%) than groups A and B (33.4%). Appropriate samples were chilled, with higher number of samples in group A (50%), while in group B (33.4%) and group C (16.7%). Comparing anesthetic variables, group A and C presented shorter latency to anesthetic induction. Groups C and A showed less need for additional doses of anesthetics when compared to group B. Anesthetic recovery time was shorter in group B, showing greater speed for the return of consciousness. It was concluded that all anesthetic protocols were safe and that ketamine combination with an alpha-2 adrenergic required less additional doses opf anesthetic. Ketamine associated with medetomidine also showed lower contamination with urine and increased volume of ejaculate.
