

ABSTRAK

PENGARUH PEMBERIAN ANESTESI KETAMIN (10 mg/kg BB)-XYLASIN (2 mg/kg BB) TERHADAP FREKUENSI DENYUT JANTUNG, FREKUENSI NAPAS, DAN SUHU REKTAL PADA KUCING JANTAN LOKAL YANG DIKASTRASI

Olivia Surya Mustika
20/459053/KH/10677

Anestesi digunakan dalam berbagai prosedur diagnostik serta operasi mayor maupun minor di Kedokteran Hewan. Anestesi menimbulkan hilangnya kesadaran serta persepsi nyeri. Telah tersedia berbagai jenis obat anestesi yang dapat digunakan untuk hewan. Respon fisiologis yang ditimbulkan tubuh hewan terhadap anestesi tidak selalu baik dan dapat membahayakan. Efektivitas penggunaan dosis ketamin 10 mg/kg BB dan xylasin 2 mg/kg BB secara intramuskular pada hewan juga dapat diamati melalui respon fisiologis yang ditimbulkan. Penelitian ini bertujuan untuk mengevaluasi pengaruh anestesi ketamin 10 mg/kg BB-xylasin 2 mg/kg BB terhadap kondisi fisiologis berupa frekuensi denyut jantung, napas, dan suhu rektal pada kucing lokal yang dikastrasi. Penelitian ini dilakukan pada 8 ekor kucing lokal dengan praanestesi atropin sulfat 0,25 mg/ml dosis 0,025 mg/kg BB secara subkutan dan ditunggu sampai 15 menit. Kucing diberikan sedativa Xylazine 2% dosis 2 mg/kg BB dan anestesi ketamin sulfat 10% dosis 10 mg/kg BB secara intramuskular. Frekuensi denyut jantung, pernapasan, dan suhu rektal diukur tiap 15 menit selama 105 menit. Data hasil pengukuran kemudian dianalisis menggunakan One-Way ANOVA. Dari hasil penelitian pada waktu 0 menit, 15 menit, 30 menit, 45 menit, 60 menit, 75 menit, 90 menit, serta 105 menit, nilai frekuensi denyut jantung masing-masing $168 \pm 6,21$, $165 \pm 5,83$, $145 \pm 6,33$, $129 \pm 6,57$, $125 \pm 6,57$, $120 \pm 6,45$, $109 \pm 6,04$, dan $122 \pm 4,75$ denyut/menit. Frekuensi pernapasan tiap 15 menit terukur $49 \pm 3,34$, $45 \pm 3,34$, $37 \pm 3,34$, $30 \pm 2,98$, $35 \pm 3,55$, $40 \pm 3,02$, $27 \pm 1,77$, dan $31 \pm 2,83$ kali/menit. Pengukuran suhu rektal tiap 15 menit menunjukkan nilai $38,3 \pm 0,1$, $38,3 \pm 0,1$, $37,4 \pm 0,1$, $36,6 \pm 0,2$, $35,5 \pm 0,1$, $35,2 \pm 0,2$, $34,5 \pm 0,1$, serta $34,3 \pm 0,2^{\circ}\text{C}$. Analisis statistik nilai frekuensi denyut jantung, pernapasan, dan suhu rektal menunjukkan hasil yang berbeda signifikan ($P < 0,05$). Berdasarkan hasil penelitian dapat disimpulkan bahwa anestesi ketamin 10 mg/kg BB-xylasin 2 mg/kg BB pada kucing lokal yang dikastrasi menurunkan frekuensi denyut jantung, pernapasan, dan suhu rektal.

Kata kunci: kucing lokal, kastrasi, atropin, ketamin, xylasin, frekuensi denyut jantung, napas, suhu rektal

ABSTRACT

THE EFFECT OF KETAMINE (10 mg/kg BW)-XYLAZINE (2 mg/kg BW) ANESTHESIA ON HEART RATE, RESPIRATORY RATE, AND RECTAL TEMPERATURE IN CASTRATED LOCAL MALE CATS

Olivia Surya Mustika
20/459053/KH/10677

Anesthesia is used in various diagnostic procedures as well as major and minor surgeries in Veterinary Medicine. Anesthesia results in loss of consciousness as well as pain perception. Various types of anesthetic drugs can be used for animals. The physiological response of the animal body to anesthesia is not always positive and can be harmful. The effectiveness of using a dose of ketamine 10 mg/kg BW and xylazine 2 mg/kg BW intramuscularly in animals can also be observed through the physiological response produced. This study aims to evaluate the effect of ketamine 10 mg/kg BW-xylazine 2 mg/kg BW anesthesia on physiological conditions in the form of heart rate, respiratory rate, and rectal temperature castrated local cats. This study was conducted on 8 local cats with preanesthesia atropine sulfate 0,25 mg/ml dose of 0,025 mg/kg BW subcutaneously and waited for 15 minutes. Cats were given the sedative xylazine 2% at a dose of 2 mg/kg BW and anesthetic ketamine sulfate 10% at a dose of 10 mg/kg BW intramuscularly. Heart rate, respiratory rate, and rectal temperature were measured every 15 minutes for 105 minutes. The measurement data were analyzed by One-Way ANOVA. From the results of the study at 0 minutes, 15 minutes, 30 minutes, 45 minutes, 60 minutes, 75 minutes, 90 minutes, and 105 minutes, the heart rate values were 168 ± 6.21 , 165 ± 5.83 , 145 ± 6.33 , 129 ± 6.57 , 125 ± 6.57 , 120 ± 6.45 , 109 ± 6.04 , and 122 ± 4.75 , respectively. Respiratory rate every 15 minutes measured 49 ± 3.34 , 45 ± 3.34 , 37 ± 3.34 , 30 ± 2.98 , 35 ± 3.55 , 40 ± 3.02 , 27 ± 1.77 , and 31 ± 2.83 . Rectal temperature measurements every 15 minutes showed values of 38.3 ± 0.1 , 38.3 ± 0.1 , 37.4 ± 0.1 , 36.6 ± 0.2 , 35.5 ± 0.1 , 35.2 ± 0.2 , 34.5 ± 0.1 , and 34.3 ± 0.2 . Statistical analysis of heart rate, respiratory rate, and rectal temperature showed significantly different results ($P < 0.05$). Based on the results of the study, it can be concluded that ketamine 10 mg/kg BW-xylazine 2 mg/kg BW anesthesia in castrated local cats reduce heart rate, respiratory rate, and rectal temperature.

Keywords: local cat, castration, atropine, ketamine, xylazine, heart rate, respiratory rate, rectal temperature