

## ABSTRAK

### PENGARUH KOMBINASI *KETAMINE-XYLAZINE* TERHADAP KADAR *ALANINE AMINOTRANSFERASE* (ALT) DAN *ASPARTATE AMINOTRANSFERASE* (AST) 25 MENIT PASCAINJEKSI PADA ANJING

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Anestesi merupakan tindakan medis yang sangat dibutuhkan untuk mengurangi dan menghilangkan nyeri terutama pada kegiatan pembedahan. Anestesi dapat mengancam jiwa dan menimbulkan banyak risiko, salah satunya adalah gangguan hati. Gangguan hati dapat dilihat dari kadar *Alanine Aminotransferase* (ALT) dan *Aspartate Aminotransferase* (AST). *Ketamine-xylazine* adalah kombinasi obat anestesi yang banyak digunakan untuk mendapatkan *balance anesthesia*. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi *ketamine-xylazine* terhadap fungsi hati berdasarkan kadar ALT dan AST 25 menit pascainjeksi. Penelitian ini menggunakan empat anjing jantan domestik dengan berat badan 6-9 kg. Perlakuan yang dilakukan terhadap anjing adalah injeksi *ketamine-xylazine*. Pengambilan sampel darah dilakukan sebelum injeksi *ketamine-xylazine* dan 25 menit pascainjeksi *ketamine-xylazine*. Sampel darah dimasukkan ke dalam tabung heparin, kemudian diperiksa kadar ALT dan AST menggunakan *blood chemistry analyzer* (Seamaty). Analisis data menggunakan uji normalitas dan *Paired Samples T Test*. Hasil analisis data pada uji normalitas menunjukkan data terdistribusi normal dan *Paired Samples T Test* menunjukkan tidak ada perubahan signifikan ( $p > 0,05$ ) kadar ALT dan AST 25 menit pascainjeksi terhadap *ketamine-xylazine*. Kesimpulan penelitian ini adalah pemberian kombinasi *ketamine-xylazine* pada dosis normal tidak memberikan pengaruh signifikan terhadap kadar enzim ALT dan AST 25 menit pascainjeksi.

Kata kunci: *ketamine*, *xylazine*, *ketamine-xylazine*, *Alanine Aminotransferase* (ALT), *Aspartate Aminotransferase* (AST)

## **ABSTRACT**

### **EFFECT OF KETAMINE-XYLAZINE TO ALANINE AMINOTRANSFERASE (ALT) AND ASPARTATE AMINOTRANSFERASE LEVELS 25 MINUTES AFTER INJECTION IN DOGS**

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Anesthesia is a medical procedure that is needed to reduce and eliminate pain, especially during surgery. This medical process involves life-threatening risks, in which one of the possible risks being associated with liver problems. Liver disorders can be seen from Alanine Aminotransferase (ALT) and Aspartate Aminotransferase (AST) levels. Ketamine-xylazine is commonly used as a combination of anesthetic drugs to achieve a condition called “balance anesthesia”. This study aimed to determine the effect of ketamine-xylazine on liver function, as indicated by the levels of ALT and AST 25 minutes after injection. This study used 4 domestic male dogs with 6-9 kg of body weight. The treatment given to the dogs were a ketamine-xylazine injection. Blood samples were taken before ketamine-xylazine injection and 25 minutes after ketamine-xylazine injection. The blood samples were put into a heparin tube, then checked for ALT and AST levels using a blood chemistry analyzer (Seamaty). Data analysis used the normality test and Paired Samples T Test. The results of data analysis in the normality test showed that the data were normally distributed and the Paired Samples T Test showed that there were no significant changes ( $p > 0,05$ ) in ALT and AST levels 25 minutes after injection of ketamine-xylazine. This study concludes that the administration of the ketamine-xylazine combination at a normal dose does not significantly affect ALT and AST enzyme levels 25 minutes after injection.

**Keywords:** ketamine, xylazine, ketamine-xylazine, Alanine Aminotransferase (ALT), Aspartate Aminotransferase (AST)