

## INTISARI

### PERUBAHAN KADAR ENZIM *ALKALINE PHOSPHATASE* (ALP), *ALANINE TRANSAMINASE* (ALT), TOTAL BILIRUBIN, DAN GLUKOSA PADA KUCING YANG TERINFEKSI *FELINE PANLEUKOPENIA* DI YOGYAKARTA

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*Feline Panleukopenia* (FPL) merupakan penyakit infeksius yang disebabkan oleh virus famili *Parvoviridae* dengan gejala klinis pada umumnya lemah, *lethargy*, dehidrasi, demam, diare, muntah, rasa sakit saat dipalpasi pada area abdomen, dan postur membungkuk. Keadaan ini terjadi karena fungsi organ yang terganggu. Untuk mengetahui terganggunya fungsi organ kemudian perlu dilakukan penelitian dengan melakukan pemeriksaan enzim. Tujuan penelitian ini adalah untuk mengetahui adanya perubahan kadar enzim *alkaline phosphatase* (ALP), *alanine transaminase* (ALT), total bilirubin, dan glukosa pada kucing yang terinfeksi *Feline panleukopenia*.

Penelitian ini menggunakan 23 sampel kucing terdiagnosa *Feline panleukopenia* dan 18 sampel kucing sehat di RSH. Prof. Soeparwi dan Klinik Hewan Grha Petcare melalui pemeriksaan kimia darah. Darah yang sudah terkoleksi lalu dilakukan pengujian menggunakan *hematology analyzer* Vetscan® VS2 *Chemistry Analyzer*. Data hasil pengujian kemudian dikumpulkan, dianalisis, dan dilakukan pengujian normalitas (*Shapiro-Wilk*) dilanjutkan dengan uji non parametrik *Mann-Whitney Test*.

Hasil analisis nilai rata-rata dari sampel kucing terinfeksi *Feline Panleukopenia Virus* pada kadar enzim ALP adalah 20,35 U/L, ALT 155,52 U/L, total bilirubin 0,78 mg/dl, dan glukosa 147,47 mg/dl. Pada sampel kucing sehat hasil analisis nilai rata-rata dari kadar enzim ALP adalah 33,67 U/L, ALT 53,78 U/L, total bilirubin 0,43 mg/dl, dan glukosa 119,06 mg/dl. Dari data tersebut disimpulkan bahwa kadar total bilirubin berupa peningkatan signifikan ( $\alpha < 0,05$ ). Kadar *alkaline phosphatase* mengalami penurunan signifikan ( $\alpha < 0,05$ ), dan untuk kadar *alanine transaminase* dan glukosa tidak memiliki perubahan yang signifikan ( $\alpha > 0,05$ ).

Kata kunci: *feline panleukopenia*, *alkaline phosphatase*, *alanine transaminase*, total bilirubin, glukosa

## **ABSTRACT**

### **CHANGES IN ENZYME LEVELS OF ALKALINE PHOSPHATASE (ALP), ALANINE TRANSAMINASE (ALT), TOTAL BILIRUBIN, AND GLUCOSE LEVELS IN CAT INFECTED WITH FELINE PANLEUKOPENIA IN YOGYAKARTA**

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Feline Panleukopenia or FPL is a highly infectious disease caused by a virus in the family Parvoviridae with frequent clinical signs such as weakness, lethargy, fatigue, fever, diarrhea, vomiting, pain on palpation of the abdomen, and a hunched posture. These signs occur due to organ malfunction. The investigation of organ malfunction by enzyme examinations is needed. The purpose of this study was to determine changes in the levels of the enzymes alkaline phosphatase (ALP), alanine transaminase (ALT), total bilirubin, and glucose in cats infected with Feline panleukopenia.

This study used 23 samples of cats diagnosed with Feline panleukopenia and 18 samples of healthy cats at RSH. Prof. Soeparwi and Klinik Hewan Grha Petcare carried out blood chemistry tests and then tested using a VETSCAN® VS2 Chemistry Analyzer hematology analyzer. Data from the test results were collected, analyzed, and the normality test (Shapiro-Wilk) followed by the non-parametric Mann-Whitney Test were performed.

The results of analysis of the average values in cats infected by Feline Panleukopenia Virus obtained enzyme levels ALP were 20.35 U/L, ALT 155.52 U/L, total bilirubin 0.78 mg/dl, and glucose 147.47 mg/dl. In healthy cats, the results of analysis of the average values of ALP enzyme levels were 33.67 U/L, ALT 53.78 U/L, total bilirubin 0.43 mg/dl, and glucose 119.06 mg/dl. From these data, it was concluded that the total bilirubin level was a significant increase ( $\alpha < 0,05$ ). Alkaline phosphatase levels decreased significantly ( $\alpha < 0,05$ ), and alanine transaminase and glucose levels did not have a significant difference ( $\alpha > 0,05$ ).

**Keywords:** feline panleukopenia, alkaline phosphatase, alanine transaminase, total bilirubin, glucose