

## **PERBEDAAN JUMLAH LEKOSIT SAMPEL SEGERA DIPERIKSA DAN TUNDA 2 JAM DAN 4 JAM PADA PASIEN LEKOSITOSIS**

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### **ABSTRAK**

Lekositosis merupakan suatu keadaan jumlah lekosit meningkat atau lebih dari normal, yang dapat terjadi pada infeksi bakteri, peradangan, trauma atau stress. Pemeriksaan hitung jumlah lekosit banyak diminta oleh klinisi dalam upaya membantu menegakkan diagnosis. Permasalahan di laboratorium Puskesmas Kupu Kabupaten Tegal, pemeriksaan terpaksa ditunda 2-4 jam karena keterbatasan tenaga laborat sehingga darah EDTA disimpan pada lemari pendingin dengan suhu 4°C. Teori menyebutkan bahwa untuk jumlah lekosit dapat mengalami perubahan jumlah apabila pemeriksaan terhadap darah EDTA ditunda lebih dari 2 jam. Perubahan jumlah lekosit disebabkan karena sel mengalami degenerasi dan desintegrasi. Hal ini mendorong untuk dilakukan penelitian yang bertujuan untuk mengetahui perbedaan jumlah lekosit segera diperiksa dengan ditunda 2 jam dan 4 jam pada pasien lekositosis. Jenis penelitian eksperimen dengan rancangan penelitian acak dengan tes akhir dan kelompok kontrol. Sampel penelitian berasal dari pasien dengan lekositosis, terdiri dari 6 orang ibu hamil, 1 orang suspek TB, 1 orang tifoid, dan orang DBD. Setiap sampel penelitian mendapat tiga perlakuan pemeriksaan, yaitu diperiksa, ditunda 2 jam, dan 4 jam setelah penyimpanan. Hasil penelitian diperoleh rerata jumlah lekosit segera diperiksa 12.000-14.800/ $\mu$ L darah, rerata 13.200/ $\mu$ L darah, simpang baku 956,56. Jumlah lekosit ditunda 2 jam 12.000- 14.800/ $\mu$ L darah, rerata 13.078/ $\mu$ L darah, simpang baku 1046,16. Jumlah lekosit ditunda 4 jam 12.200-15.000/ $\mu$ L darah, rerata 13.278/ $\mu$ L darah, simpang baku 1144,31. Hasil uji statistik diperoleh tidak terdapat perbedaan bermakna pada jumlah lekosit ditunda 2 jam dan 4 jam.

Kata kunci : jumlah lekosit, tunda, lekositosis

# **THE DIFFERENCE OF LEUKOCYTE AMOUNT IN SAMPLE OF IMMEDIATELY CHECKED AND DELAYED FOR 2 HOURS AND 4 HOURS ON LEUKOCYTOSIS PATIENTS**

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## **ABSTRACT**

Leukocytosis is a state of leukocytes increasing or more than normal, which can occur in bacterial infection, inflammation, trauma or stress. Examination of leukocytes amount is requested by many clinicians in effort to help establishing the diagnosis. The problem in laboratory of Puskesmas Kupu Kabupaten Tegal, the examination was forced to be delayed for 2-4 hours due to limited laboratory staff, so EDTA blood was stored in refrigerator with 4°C temperature. The theory states that for the leukocytes amount could be changed in its amount if examination towards EDTA blood is delayed more than 2 hours. Change in leukocyte count caused by cell undergoing degeneration and disintegration. This matter encourages to be researched to find out the difference of leukocyte amount of immediately checked and delayed for 2 hours and 4 hours on leukocytosis patients. The research type is experimental with randomized research design with final test and control group. Research samples came from patients with leukocytosis, it consists of 6 pregnant women, 1 TB suspect, 1 typhoid, and DHF people. Each research sample received three examination treatments: checked, delayed for 2 hours, and 4 hours after storage. The research result obtained the average amount of leukocytes which immediately checked 12.000-14.800/ $\mu\text{L}$  of blood, average 13.200/ $\mu\text{L}$  of blood, standard deviation 956,56. The leukocyte amount which delayed for 2 hours 12.000-14.800/ $\mu\text{L}$  of blood, average 13.078/ $\mu\text{L}$  of blood, standard deviation 1046,16. Leukocytes which delayed for 4 hours 12.200-15.000/ $\mu\text{L}$  of blood, average 13.278 /  $\mu\text{L}$  of blood, standard deviation 1144,31. The statistical test result obtained there was no significant difference on leukocyte amount which delayed for 2 hours and 4 hours.

Keywords: leukocyte amount, delay, leucocytosis