ABSTRAK

Latar Belakang : Pemeriksaan hitung jenis leukosit merupakan pemeriksaan untuk menghitung jenis leukosit, seperti neutrofil, eosinofil, basofil, monosit, dan limfosit berdasarkan proporsi (%) tiap jenis leukosit terhadap jumlah leukosit. Sebelum dilakukan pemeriksaan hitung jenis leukosit, darah vena dihomogenisasi terlebih dahulu. Namun, beberapa fasilitas kesehatan tidak mempunyai alat homogenisasi *blood roller mixer.* Sehingga perlu dilakukan homogenisasi manual teknik inversi agar mengetahui hasil pemeriksaan hitung jenis leukosit yang sama atau mendekati *blood roller mixer.*

Tujuan Penelitian : Mengetahui pengaruh variasi pencampuran darah antikoagulan terhadap hasil pemeriksaan hitung jenis leukosit.

Metode Penelitian : Jenis penelitian adalah *true experiment* dengan desain penelitian *post test only with control group design.* Sampel yang digunakan adalah darah vena. Dibutuhkan sekitar 150 ml darah vena dengan masing – masing perlakuan homogenisasi manual sebanyak 10 tabung, yaitu *control,* 6 kali, 8 kali, 10 kali, dan 12 kali. Terdapat 50 data yang diolah secara deskriptif dan statistik menggunakan uji *Repeated Measure ANOVA* dan *Nonparametric K Independent.*

Hasil : Hasil penelitian menunjukkan tidak ada pengaruh variasi pencampuran darah antikoagulan terhadap hasil pemeriksaan hitung jenis leukosit (limfosit p=0,628), (monosit p=0,704), dan (granulosit p=0,299). Persentase selisih rerata nilai hitung jenis leukosit pada darah antikoagulan yang dihomogenkan manual teknik inversi 6-12 kali pada limfosit 0,25% - 2,16%, monosit 6,59% - 10,26%, dan granulosit 1,94% - 1,51%.

Kesimpulan : Tidak ada pengaruh variasi pencampuran darah EDTA terhadap hasil pemeriksaan hitung jenis leukosit.

Kata Kunci : Homogenisasi, Teknik Inversi, Darah EDTA, Hitung Jenis Leukosit, *Blood Roller Mixer.*

ABSTRACT

Background: Leukocyte count examination is an examination to count the types of leukocytes, such as neutrophils, eosinophils, basophils, monocytes, and lymphocytes based on the proportion (%) of each type of leukocytes to the number of leukocytes. Before the examination of the leukocyte type count, the venous blood is first homogenized. However, some health facilities do not have a homogenizing blood roller mixer. So it is necessary to do manual homogenization of inversion techniques in order to know the results of the examination of the same type of leukocyte count or close to the blood roller mixer.
Research Objective: To determine the effect of anticoagulant blood mixing variation on the results of leukocyte count.
Research Methods: This type of research is a true experiment with post test research design only with control group design. The sample used is venous blood. It takes about 150 ml of venous blood with each manual homogenization treatment of 10 tubes, namely control, 6 times, 8 times, 10 times, and 12 times. There are 50 data processed descriptively and statistically using Repeated Measure Anova and Nonparametric K Independent test.
Results: The results showed no effect of anticoagulant blood mixing variation on the results of examination of leukocyte count (lymphocytes p=0.628), (monocytes p=0.704), and (granulocytes p=0.299). Percentage difference in mean value of leukocyte count in anticoagulant blood homogenized by manual inversion technique 6-12 times in lymphocytes 0.25% - 2.16%, monocytes 6.59% - 10.26%, and granulocytes 1.94% - 1.51%.
Conclusion: There is no effect of EDTA blood mixing variation on the results of leukocyte count.

Keywords: Homogenization, Inversion Technique, EDTA Blood, Count Type Leukocytes, Blood Roller Mixer.