

**DIFFERENCE BETWEEN 15% GIEMSA CONCENTRATION FOR 10
MINUTES WITH 10% GIEMSA CONCENTRATION FOR 20 MINUTES
ON PERIPHERAL BLOOD SMEAR STAINING**

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ABSTRACT

Background: Giemsa staining in each dilution has a different staining time. The difference in dilution composition causes an influence on cell color. Less than optimal staining quality and different perceptions by observers, so that the morphological observations of erythrocyte or leukocyte cells and the count of erythrocyte or leukocyte cells are less accurate and effective.

Research purposes: Knowing the quality of staining using Giemsa concentration 15% for 10 minutes with Giemsa concentration 10% for 20 minutes using a scoring system on erythrocyte and leukocyte cell morphology.

Research method: The type of research used in this study is a pseudo-experiment with a posttest only control group design. Blood smear preparations were made with a total of 60 preparations for 2 treatments which were processed into 60 data. Data was analyzed in descriptive using images, analytic using frequency percentages and statistics using SPSS 24 for windows with the Wilcoxon test.

Research results: Percentage frequency of good scores on erythrocytes and leukocytes (basophils, eosinophils, neutrophils, monocytes, and lymphocytes) in peripheral blood smears Giemsa concentration 15% for 10 minutes respectively by 67%, 0%, 80%, 97%, 97%, 97% while in Giemsa concentration 10% for 20 minutes by 70%, 0%, 47%, 80%, 97%, 93%, 97%. Wilcoxon test result of erythrocytes, eosinophils, neutrophils, monocytes, lymphocytes respectively 0.739; 0.008; 1.000; 0.564; 1.000

Conclusion: There is no significant difference in the staining results of Giemsa peripheral blood smear preparations of 15% concentration for 10 minutes compared to peripheral blood smears of 10% concentration Giemsa staining for 20 minutes of erythrocytes, basophils, neutrophils, monocytes and lymphocytes.

Keywords: concentration, Giemsa, erythrocytes, leukocytes

PERBEDAAN KONSENTRASI GIEMSA 15% SELAMA 10 MENIT DENGAN KONSENTRASI GIEMSA 10% SELAMA 20 MENIT TERHADAP PEWARNAAN APUSAN DARAH TEPI

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ABSTRAK

Latar Belakang: Pengecatan giemsa pada setiap pengenceran mempunyai waktu pengecatan yang berbeda beda. Perbedaan komposisi pengenceran menyebabkan pengaruh terhadap warna sel. Kurang optimalnya kualitas pewarnaan dan persepsi yang berbeda-beda oleh pengamat sehingga pengamatan morfologi sel eritrosit maupun leukosit dan hitung jumlah sel eritrosit maupun leukosit menjadi kurang akurat dan efektif

Tujuan Penelitian: Mengetahui kualitas pewarnaan menggunakan Giemsa konsentrasi 15% selama 10 menit dengan Giemsa konsentrasi 10% selama 20 menit menggunakan sistem skoring terhadap morfologi sel eritrosit dan leukosit.

Metode Penelitian: Jenis penelitian yang digunakan pada penelitian ini adalah eksperimen semu dengan desain posttest only control grup design. Darah dibuat sediaan apus dengan jumlah 60 preparat untuk 2 perlakuan yang diolah menjadi 60 data. Data dianalisis secara deskriptif menggunakan gambar, analitik menggunakan persentase frekuensi dan statistik menggunakan SPSS 24 *for windows* dengan uji *Wilcoxon*.

Hasil Penelitian: Presentase frekuensi skor baik pada eritrosit dan leukosit (basofil, eosinofil, neutrofil, monosit, dan limfosit) di apusan darah tepi Giemsa konsentrasi 15% selama 10 menit berturut sebesar 67%, 0%, 80%, 97%, 97%, 97% sedangkan pada Giemsa konsentrasi 10% selama 20 menit sebesar 70%, 0%, 47%, 80%, 97%, 93%, 97%. Hasil Uji Wilcoxon eritrosit, eosinofil, neutrofil, monosit, limfosit berturut 0,739; 0,008; 1,000; 0,564; 1,000

Kesimpulan: Tidak ada perbedaan yang signifikan pada hasil pewarnaan sediaan apusan darah tepi Giemsa konsentrasi 15% selama 10 menit dibandingkan dengan apusan darah tepi pewarnaan Giemsa konsentrasi 10% selama 20 menit pada sel eritrosit, basofil, neutrofil, monosit dan limfosit.

Kata Kunci: konsentrasi, Giemsa, eritrosit, leukosit