

PERBEDAAN JUMLAH TROMBOSIT CARA AUTOMATIK BERDASARKAN METODE OPTIK DAN IMPEDANSI

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ABSTRAK

Hitung trombosit cara otomatis dilakukan dengan dua metode yaitu metode optik dan impedansi yang memiliki prinsip berbeda. Metode optik berdasarkan ukuran serta morfologi sel sedangkan metode impedansi berdasarkan ukuran sel saja. Tujuannya adalah untuk mengetahui perbedaan hasil jumlah trombosit cara otomatis berdasarkan metode optik dan impedansi dengan desain penelitian *cross sectional*. Sampel darah EDTA didapatkan dari pasien rawat jalan ataupun rawat inap yang dilakukan pemeriksaan hematologi rutin yang diambil acak sebanyak 55 sampel. Pemeriksaan jumlah trombosit yang diperoleh dilakukan uji statistik *paired t_test*. Hasil penelitian jumlah trombosit berdasarkan metode optik didapatkan rerata : $308 \times 10^3/\mu\text{L}$ ($144 - 498 \times 10^3/\mu\text{L}$) dengan SD : 90,166. Metode impedansi didapatkan rerata : $317 \times 10^3/\mu\text{L}$ ($153 - 496 \times 10^3/\mu\text{L}$) dengan SD : 88,920. Berdasarkan hasil uji statistik *paired t_test* didapatkan hasil p sebesar 0,000 yang berarti nilai $p < 0,05$ yang menunjukkan ada perbedaan yang signifikan hasil jumlah trombosit cara otomatis berdasarkan metode optik dan impedansi.

Kata kunci : Jumlah Trombosit, Metode Optik dan Impedasi

THE DIFFERENCES OF AUTOMATIC PLATELET COUNT BASIC ON OPTICAL AND IMPEDANCE METHODS

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ABSTRACT

Platelet count automatic way done with two methods: optical and impedance methods that have different principles. The optical method is based on the size and morphology of the cells while the method of impedance based cell size only. The purpose was to determine the differences results of automatically platelet count examination basic on optical and impedance methods with cross sectional study design. The population was outpatient or inpatient EDTA blood samples that have routine hematology examination that taken at random sample of 55 samples. The platelet counts test that obtained performed with paired t_test statistical tests. The results of platelet count based on optical methods obtained mean : $308 \times 10^3/\mu\text{L}$ ($144 - 498 \times 10^3/\mu\text{L}$) with SD : 90,166. Impedance method obtained mean : $317 \times 10^3/\mu\text{L}$ ($153 - 496 \times 10^3/\mu\text{L}$) with SD : 88,920. Based on the statistical test results obtained t_test paired $p = 0,000$ which means that the value of $p < 0.05$, which showed that has significant differences results of automatically platelet count examination basic on optical and impedance methods

Keywords: Platelet Count, Optical and Impedance Method