ABSTRACT

Background: Clinical laboratory as a health facility to carry out examinations of individual health conditions, especially to support disease diagnosis, cure disease and restore health. Serum is one of the specimens used for the examination of total protein levels. Serum formation begins with allowing the blood to stand for 20-30 minutes and then centrifuged. However, with the vacutainer gel separator tube, the blood sample can clot in about 5 minutes and then it is centrifuged.

Research Objective: Knowing the difference in total protein levels in blood samples in a vacutainer gel separator tube which was immediately centrifuged and left for 30 minutes before being centrifuged and knowing the percentage difference in the average total protein level in blood samples that were immediately centrifuged and left for 30 minutes before being centrifuged.

Research Method: This type of research is analytic observational with a cross sectional research design. From the results of the total protein content examination, 40 data were obtained and then analyzed descriptively and statistically with the Shapiro Wilk normality test and the Paired Sample T-test difference using SPSS 25.0 for Windows.

Results: The results of this study showed that there was no difference in the results of the examination of total protein levels with the average total protein levels in blood samples in vacutainer gel separator tubes which were immediately centrifuged 8.06 g/dL, while in blood samples in vacutainer gel separator tubes which were allowed to stand for 30 minutes before centrifugation was 8.00 g/dL. The percentage of the average difference is 2.47% and the results of statistical analysis show p (0.326) ≥ 0,05.

Conclution: There was no significant difference between total protein levels in blood samples in vacutainer gel separator tubes which were immediately centrifuged and left for 30 minutes before being centrifuged.

Keywords: total protein, vacutainer gel separator, centrifuge

ABSTRAK

Latar Belakang: Laboratorium klinik sebagai sarana kesehatan untuk melaksanakan pemeriksaan terhadap kondisi kesehatan perseorangan terutama untuk menunjang diagnosis penyakit, penyembuhan penyakit dan pemulihan kesehatan. Serum adalah salah satu specimen yang digunakan untuk pemeriksaan kadar protein total. Pembentukan serum diawali dengan mendiamkan darah selama 20 – 30 menit selanjutnya disentrifus. Akan tetapi dengan adanya tabung vacutainer gel separator, sampel darah dapat membeku dalam waktu sekitar 5 menit selanjutnya disentrifus.

Tujuan Penelitian: Mengetahui perbedaan kadar protein total pada sampel darah dalam tabung vacutainer gel separator yang segera disentrifus dan didiamkan 30 menit sebelum disentrifus serta mengetahui persentase selisih rata – rata kadar protein total pada sampel darah yang segera disentrifus dan didiamkan 30 menit sebelum disentrifus.

Metode Penelitian: Jenis penelitian ini adalah observasional analitik dengan desain penelitian yaitu *cross sectional*. Dari hasil pemeriksaan kadar protein total yang diperoleh yaitu 40 data kemudian dianalisis deskriptif dan analisis statistik dengan uji normalitas *Shapiro Wilk* dan uji beda *Paired Sample T-test* menggunakan SPSS 25.0 *for Windows.*

Hasil Penelitian: Hasil penelitian ini menunjukkan tidak ada perbedaan hasil pemeriksaan kadar protein total dengan rata-rata kadar protein total pada sampel darah dalam tabung vacutainer gel separator yang segera disentrifus adalah 8,06 g/dL, sedangkan pada sampel darah dalam tabung vacutainer gel separator yang didiamkan 30 menit sebelum disentrifus adalah 8,00 g/dL. Persentase selisih rata-rata sebesar 2,47% dan hasil analisis statistik menunjukkan p (0,326) $\geq$ 0,05.

Kesimpulan: Tidak terdapat perbedaan yang signifikan antara kadar protein total pada sampel darah dalam tabung vacutainer gel separator yang segera disentrifus dan didiamkan 30 menit sebelum disentrifus.

Kata Kunci: protein total, vacutainer gel separator, sentrifus.