

ABSTRACT

Background : The pre-analytical stage involves inserting the needle into a vacutainer tube and transferring the blood sample from the syringe into a tube, potentially causing hemolysis. This occurs because blood cells pass through the relatively narrow needle, causing the red blood cells to squeeze together and undergo cleavage, which can damage the red blood cell walls. Hemolysis can affect laboratory test results, including total protein levels.

Research Objectiv : To determine the difference in total protein levels in the treatment of transferring blood samples by removing the syringe needle and without removing the syringe needle.

Research Method : This type of research is observational analytics using cross sectional design. Samples in the form of venous blood from 16 people. Each sample is divided into 2 tubes. The first tube is given the treatment of transferring blood samples by removing the needle and the second tube is given the treatment of transferring blood samples without removing the needle and spraying. Then the data was statistically analyzed with wilcoxon nonparametric tests using SPSS 25.0 for windows.

Result : Descriptive analysis showed that the average total protein level in blood samples increased by 10,13% between the blood sample transfer treatments, with and without removing the syringe needle, and without depressing the plunger. The Wilcoxon statistical test yielded a p-value (0.000) <0.05 , indicating a significant difference in total protein levels after removing the syringe needle.

Conclusion : There was a significant difference in total protein levels of 10,13% in the samples treated with the transfer treatment without removing the syringe needle.

Keyword : Blood sample transfer, Total Protein Level, Hemolysis.

ABSTRAK

Latar Belakang : Perlakuan tahap pra-analitik yaitu pada teknik perlakuan pemindahan sampel darah dari jarum spuit ke dalam tabung *vacutainer* dengan menusukkan jarum berpotensi menyebabkan hemolisis. Hal ini terjadi karena sel darah melewati jarum dengan relatif sempit sehingga eritrosit saling berhimpitan dan mengalami gesekan yang dapat merusak dinding sel eritrosit. Hemolisis dapat memengaruhi hasil pemeriksaan laboratorium salah satunya kadar protein total.

Tujuan Penelitian : Untuk Mengetahui perbedaan kadar protein total pada perlakuan pemindahan sampel darah dengan melepas jarum spuit dan tanpa melepas jarum spuit.

Metode Penelitian : Jenis penelitian yang digunakan adalah observasional analitik dengan desain *cross sectional*. Sampel berupa darah vena yang berasal dari 30 orang. Sampel dibagi menjadi 2 tabung, tabung pertama diberi perlakuan pemindahan sampel darah dengan melepas jarum dan tabung kedua pemindahan sampel darah tanpa melepas jarum. Data kemudian dianalisis dengan uji *Wilcoxon* menggunakan SPSS 25.0 *for windows*.

Hasil Penelitian : Analisis deskriptif menunjukkan rerata hasil pemeriksaan kadar protein total pada sampel darah antara perlakuan pemindahan sampel darah dengan melepas jarum spuit dan tanpa melepas jarum spuit seraya menekan plunger mengalami kenaikan rata-rata sebesar 10,13%. Hasil uji statistik *Wilcoxon* diperoleh $p(0,000) < 0,05$ menunjukkan ada perbedaan signifikan kadar protein total dengan melepas jarum spuit.

Kesimpulan : Ada perbedaan signifikan kadar protein total sebesar 10,13% pada sampel yang diberi perlakuan pemindahan tanpa melepas jarum spuit.

Kata Kunci : Pemindahan sampel darah, Kadar Protein Total, Hemolisis.