ABSTRAK

Latar Belakang : Serum lipemik menjadi permasalahan di laboratorium, dapat menyebabkan hasil kadar glukosa dalam serum menjadi tinggi palsu. Pemeriksaan menggunakan metode fotometri yang dapat menyebabkan gangguan pada panjang gelombang dan hamburan cahaya. *High Speed* Sentrifugasi sebagai alternatif untuk menghilangkan serum lipemik, metode lain untuk menangani serum lipemik yaitu presipitasi, dilakukan dengan pengolahan *Polyethylene glycol* 6000 8%.

Tujuan Penelitian : Mengetahui perbedaan penanganan serum lipemik sebelum dan sesudah diolah menggunakan *Polyethlyene glycol* 6000 8% dan *High Speed* Sentrifugasi.

Metode Penelitian : Jenis penelitian adalah eksperimen dengan *Static Grup Comparison*. Penelitian di Instalasi Laboratorium Patologi Klinik Rumah Sakit Akademik Universitas Gadjah Mada pada bulan November 2022, dengan sampel berjumlah 20. Data hasil penelitian dianalisis menggunakan uji Paired T-Test.

Hasil Penelitian : Hasil penelitian menunjukkan analisis statistic p = (0,000) ≤ 0,05 yang artinya ada perbedaan kadar glukosa serum lipemik sebelum dan sesudah pengolahan PEG 6000 8% dan sesudah *High Speed* Sentrifugasi. Hasil rata-rata kadar glukosa dalam serum lipemik sebelum pengolahan *Polyethylene glycol* 6000 8% dan *High Speed* sentrifugasi adalah 116,3 mg/dl. Rata-rata kadar glukosa sebelum dan sesudah pengolahan PEG 6000 8% adalah 108,65 mg/dl. Rata-rata kadar glukosa sebelum dan sesudah *High Speed* Sentrifugasi adalah 114,1 mg/dl.

Kesimpulan : Ada perbedaan kadar kadar glukosa dalam serum lipemik sebelum dan sesudah penambahan P*olyethylene Glycol* 6000 8% dan *High Speed* Sentrifugasi.

Kata Kunci : Serum lipemik, *Polyethylene Glycol* 6000 8%, *High Speed* Sentrifugasi

ABSTRACT

Bacground : Lipemic serum is a problem in the laboratory, it can cause the results of glucose levels in the serum to be falsely high. The examination uses a photometric method which can cause interference with wavelengths and light scattering. *High Speed* Centrifugation as an alternative to remove lipemic serum, another method for handling lipemic serum is precipitation, which is carried out by processing *Polyethylene glycol* 6000 8%.

Objectives : Knowing the differences in the handling of lipemic serum before and after being processed using *Polyethlyene glycol* 6000 8% and *High Speed* Centrifugation.

Methods : This type of research is an experiment with Static Group Comparison. Research at the Clinical Pathology Laboratory Installation at the Gadjah Mada University Academic Hospital in November 2022, with a sample of 20. Research data were analyzed using the Paired T-Test.

Result : The results showed statistical analysis $p = (0.000) \leq 0.05$ which means there is a difference in lipemic serum glucose levels before and after processing PEG 6000 8% and after *High Speed* Centrifugation. The average yield of glucose levels in lipemic serum before processing *Polyethylene glycol* 6000 8% and *High Speed* centrifugation was 116.3 mg/dl. The average glucose level before and after processing PEG 6000 8% was 108.65 mg/dl. The average glucose level before and after *High Speed* Centrifugation was 114.1 mg/dl.

Conclusion : There are differences in the levels of glucose levels in lipemic serum before and after the addition of *Polyethylene Glycol* 6000 8% and *High Speed* Centrifugation.

Keywords : Lipemic serum, *Polyethylene Glycol* 6000 8%, *High Speed* Centrifugation