

ABSTRAK

Latar Belakang : Serum lipemik yang ditemukan di laboratorium dapat menyebabkan gangguan pada hasil analisis. Serum lipemik dapat meningkatkan penyerapan cahaya dan menurunkan transmisi cahaya yang digunakan pada analisis spektrofotometri. WHO menetapkan beberapa metode untuk menghilangkan lipemik pada serum. Metode alternatif yang dapat digunakan diantaranya adalah pengolahan dengan PEG 6000 8% *high speed* sentrifugasi.

Tujuan Penelitian : Mengetahui *Polyethylene Glycol* 6000 8% dapat dijadikan alternatif pengganti *High Speed* Sentrifugasi dalam pengolahan serum lipemik pada pemeriksaan kadar kolesterol total.

Metode Penelitian : Jenis penelitian ini adalah eksperimen menggunakan rancangan *Static Group Comparison*. Sampel yang digunakan berjumlah 20 sisa serum lipemik. Serum lipemik diperiksa kadar kolesterol totalnya sebanyak 3 kali, yaitu sebelum diolah, setelah diolah dengan PEG 6000 8% dan setelah *high speed* sentrifugasi. Data yang diperoleh dianalisis menggunakan analisis deskriptif dan statistik. Analisis deskriptif dalam bentuk tabel dan grafik dan analisis statistik menggunakan *One sample Saphiro-wilk* dan *Paired T-Tes Sample*.

Hasil Penelitian : Rerata kadar kolesterol total dalam serum lipemik sebelum diolah, setelah diolah dengan PEG 6000 8% dan setelah *High Speed* sentrifugasi adalah 218,45 mg/dL, 137,65 mg/dL, 192,95 mg/dL. Selisih penurunan kadar kolesterol total setelah diolah dengan PEG 6000 8% dan *High Speed* sentrifugasi adalah 55,30 mg/dL (22,66%).

Kesimpulan : PEG 6000 8% dapat dijadikan alternatif pengganti *High Speed* sentrifugasi dalam penanganan serum lipemik pada pemeriksaan kadar kolesterol total.

Kata Kunci : *high speed*, kolesterol total, polyethylene glycol, serum lipemik.

ABSTRACT

Background : Lipemic serum are often found in laboratories can cause interference in the analytical results. Lipemic can increase absorption of light and thereby decrease light transmittance used for spectrophotometric analysis. WHO defines several methods to eliminate lipemic in serum. Alternative methods that can be used were treated with PEG 6000 8% and high speed centrifugation.

Objective : The aim of the study is to know is Polyethylene Glycol 6000 8% can be used as an alternative to High Speed centrifugation in treated lipemic serum in examining total cholesterol levels.

Method : This research was an experiment with Static Group Comparison design. This research used 20 lipemic serum. Lipemic serum was examined for total cholesterol levels, before treated, after treated with PEG 6000 8% and after high speed centrifugation. The data obtained the analyzed by descriptive and statistic analysis. The descriptive analysis used table and graphic, and statistic analysis used One sample Saphiro-wil Test and Paired T-Test Sample

Result : The average result of total cholesterol levels in lipemic serum before treated, after treated with PEG 6000 8% and after high speed centrifugation were 218,45 mg/dL, 137,65 mg/dL and 192,95 mg/dL. Total cholesterol levels difference reduction after treated with PEG 6000 8% and high speed centirugation was 55,30 mg/dL (22,66%).

Conclusion : PEG 6000 8% can be used as an alternative to high speed centrifugation in treated lipemic serum in examining total cholesterol levels.

Keyword : high speed, total cholesterol, polyethylene glycol, lipemic serum.