

## ABSTRAK

**Latar Belakang:** Hemolisis merupakan salah satu kesalahan terbesar yang sering ditemukan dalam tahap pra analitik. Serum hemolisis ditandai dengan kondisi serum yang berwarna kemerahan dikarenakan lepasnya hemoglobin dari eritrosit yang rusak. Serum hemolisis dapat mengganggu dalam pemeriksaan laboratorium karena sampel mengandung hemoglobin yang dapat mempengaruhi hasil pemeriksaan kimia darah salah satunya pemeriksaan kadar trigliserida.

**Tujuan Penelitian:** Untuk mengetahui perbedaan kadar trigliserida pada serum hemolisis ringan dan non hemolisis.

**Metode Penelitian:** Jenis penelitian ini adalah pendekatan kuantitatif dengan rancangan eksperimen semu atau *quasi experimental* dengan desain penelitian *Posttest Only Control Group Design*. Sampel yang digunakan berupa serum yang berasal dari 16 orang dan masing-masing dibagi menjadi 2 kelompok. Setiap kelompok dibuat 1000  $\mu$ L campuran yang masing-masing ditambah hemolisis sebanyak 75  $\mu$ L sehingga didapatkan kadar hemoglobin dalam campuran yaitu 100 mg/dL. Serum yang sudah ditambah hemolisis diukur kadar trigliserida dengan metode enzimatik kalorimetri (GPO-PAP) dengan spektrofotometri. Data hasil pemeriksaan kadar trigliserida diperoleh sebanyak 32 data yang dianalisis secara deskriptif dan statistik.

**Hasil Penelitian:** Hasil penelitian ini menunjukkan adanya perbedaan rerata hasil pemeriksaan kadar trigliserida. Kadar trigliserida pada serum hemolisis ringan memiliki rata-rata 84,44 mg/dL, sedangkan kadar trigliserida pada serum non hemolisis memiliki rata-rata 71,6 mg/dL. Dari hasil rata-rata kedua sampel tersebut terdapat perbedaan selisih sebesar 12,84 mg/dL dengan presentase 16,45%. Analisis statistik menunjukkan  $p < 0,05$  artinya ada perbedaan kadar trigliserida pada serum hemolisis ringan yang mengandung 100 mg/dL dan non hemolisis.

**Kesimpulan:** Terdapat perbedaan hasil pemeriksaan kadar trigliserida pada serum hemolisis ringan dan non hemolisis. Pada serum hemolisis ringan dengan tingkat hemolisis 100 mg/dL menunjukkan hasil pemeriksaan kadar trigliserida yang lebih tinggi.

**Kata Kunci:** Hemolisis, Non hemolisis, Kadar hemoglobin, Kadar trigliserida.

## ABSTRACT

**Background:** Hemolysis is one of the biggest errors that is often found in the pre-analytical stage. Serum hemolysis is characterized by a reddish color in the serum due to the release of hemoglobin from damaged erythrocytes. Hemolysis serum can interfere with laboratory tests because the sample contains hemoglobin which can affect the results of blood chemistry tests, one of which is checking triglyceride levels.

**Research Objective:** To determine the difference in triglyceride levels in mild and non-hemolyzed serum.

**Research Method:** This type of research is a quantitative approach with a quasi-experimental design with a Posttest Only Control Group Design research design. The samples used were serum from 16 people and each was divided into 2 groups. Each group made 1000  $\mu$ L of mixture, each of which added 75  $\mu$ L of hemolysate so that hemoglobin levels in the mixture were obtained which was 100 mg / dL. Serum that has been added with hemolysate is measured triglyceride levels by the enzymatic calorimetry method (GPO-PAP) with spectrophotometer. Data from the examination of triglyceride levels were obtained as many as 32 data analyzed descriptively and statistically.

**Result:** The results of this study show that there is a difference in the mean results of checking triglyceride levels. Triglyceride levels in mild hemolysis serum have an average of 84.44 mg/dL, while triglyceride levels in non-hemolysis serum have an average of 71.6 mg/dL. From the average results of the two samples, there is a difference of 12.84 mg/dL with a percentage of 16.45%. Statistical analysis showed  $p < 0.05$ , meaning there was a difference in triglyceride levels in mild hemolysis serum containing 100 mg/dL and non-hemolysis.

**Conclusion:** There are differences in the results of triglyceride levels in mild hemolysis and non-hemolysis serum. In mild hemolysis serum with a hemolysis level of 100 mg / dL shows higher triglyceride level test results.

**Keywords:** Hemolysis, Non hemolysis, Hemoglobin level, Triglyceride level.