

ABSTRACT

Background: Cholesterol examination is one part of the lipid profile examination which is often carried out in clinical laboratories. Cholesterol level readings using a spectrophotometer should be done at an incubation time of 5-10 minutes. Longer incubation times can reduce enzyme activity, which can affect the results of checking cholesterol levels.

Objective: To determine the difference in the results of increasing and decreasing cholesterol levels with an incubation time of 10 minutes and 20 minutes before reading with a spectrophotometer.

Methods: This research uses Pre-Experimental Design (non-design) research. The research sample consisted of 20 samples who received 2 measurements of cholesterol levels, namely incubation times of 10 and 20 minutes. The research variables were incubation time and cholesterol levels.

Results: The research results mean incubation 10 and 20 minute cholesterol levels respectively were 209.65 mg/dL and 196.5mg/dL, Paired Sample T-Test showed there was no significant difference in 10 and 20 minute incubation cholesterol levels ($p=0.062$).

Conclusion: Total Cholesterol Levels decreased with incubation time of 10 minutes and 20 minutes, although statistically there was no significant difference ($p=0.062$).

Keywords: Cholesterol, incubation, room temperature.

ABSTRAK

Latar Belakang: Pemeriksaan kolesterol merupakan salah satu bagian pemeriksaan profil lipid yang sering dilakukan di laboratorium klinik. Pembacaan kadar kolesterol menggunakan spektrofotometer seharusnya dilakukan pada waktu inkubasi 5-10 menit. Waktu inkubasi yang lebih lama dapat menurunkan aktivitas enzim, sehingga dapat berpengaruh terhadap hasil pemeriksaan kadar kolesterol.

Tujuan Penelitian: Untuk mengetahui adanya perbedaan hasil kenaikan dan penurunan kadar kolesterol dengan waktu inkubasi 10 menit dan 20 menit sebelum dibaca spektrofotometer.

Metode Penelitian: Penelitian ini menggunakan jenis penelitian *Pre-Experimental Design (non design)*. sampel penelitian sebanyak 20 sampel yang mendapatkan 2 kali pengukuran kadar kolesterol, kelompok 1 diinkubasi 10 menit dan kelompok 2 diinkubasi 20 menit. Sampel diperiksa kadar kolesterol total menggunakan metode CHOD-PAP. Data dianalisa untuk mengetahui penurunan kadar kolesterol total.

Hasil Penelitian: Hasil penelitian rerata kadar kolesterol inkubasi 10 dan 20 menit secara berturut-turut adalah 209,65 mg/dL dan 196,5mg/dL, Uji *Paired Sampel T-Test* menyebutkan tidak ada perbedaan bermakna kadar kolesterol inkubasi 10 dan 20 menit ($p=0,062$).

Kesimpulan: Kadar Kolesterol Total mengalami penurunan seiring waktu inkubasi 10 menit dan 20 menit, meski secara statistik tidak ada perbedaan yang signifikan bermakna ($p=0,062$).

Kata Kunci : Kolesterol, waktu inkubasi, suhu ruang.