

PERBANDINGAN HASIL PEMERIKSAAN KOLESTEROL TOTAL MENGGUNAKAN SAMPEL SERUM DAN PLASMA EDTA SEGERA DAN DISIMPAN SELAMA 4 JAM

Luvia Isma Hanifah

Program Studi Sarjana Terapan Teknologi Laboratorium Medis
Fakultas Farmasi, Sains dan Teknologi
Universitas Al-Irsyad Cilacap

ABSTRAK

Di Indonesia, penderita kolesterol bisa dikatakan cukup tinggi, yaitu mencapai 28%. Kolesterol yang dibiarkan tidak terkendali dapat menyumbat pembuluh darah, yang menyebabkan penyakit *stroke*, *aterosklerosis*, *angina*, dan serangan jantung. Pengaruh waktu penundaan pemeriksaan terhadap kadar kolesterol menyatakan bahwa terjadinya penurunan dan perbedaan hasil pemeriksaan kadar kolesterol saat dilakukan penundaan berdasarkan waktu dan suhu penyimpanan. Tujuan penelitian untuk mengetahui perbandingan antara hasil pemeriksaan kolesterol total menggunakan serum dan plasma EDTA segera dan disimpan selama 4 jam. Penelitian ini bersifat analitik dengan menggunakan desain penelitian *cross sectional*. Hasil penelitian menunjukkan pada uji statistik menggunakan uji *Paired Sample T-Tes* pada sampel serum segera diperiksa dan disimpan selama 4 jam didapati nilai ($p=0,015$) sehingga nilai ($p>0,05$) dan dapat disimpulkan tidak ada perbedaan antara kadar kolesterol total pada sampel serum. Sampel plasma EDTA segera diperiksa dan disimpan selama 4 jam didapati nilai ($p<0,001$), perbandingan kadar kolesterol total menggunakan sampel serum dan plasma EDTA segera diperiksa dan disimpan selama 4 jam didapati nilai ($p<0,001$) sehingga nilai ($p<0,05$) dan dapat disimpulkan ada perbedaan antara kadar kolesterol total pada plasma EDTA segera diperiksa dan disimpan selama 4 jam serta serum dan plasma EDTA segera diperiksa dan disimpan selama 4 jam. Pada sampel serum menunjukkan kenaikan kadar kolesterol sebesar 0,79% sedangkan sampel plasma EDTA menunjukkan penurunan kadar kolesterol sebesar 3,60%.

Kata Kunci : Kolesterol, Serum, Plasma EDTA, Penundaan 4 Jam

Comparison of Total Cholesterol Test Results Using Serum and Plasma EDTA Samples Immediately and Stored for 4 Hours

Luvia Isma Hanifah

Department of Medical Laboratory Technology

Faculty of Pharmacy, Science and Technology

Al-Irsyad University, Cilacap

ABSTRACT

In Indonesia, the number of cholesterol sufferers is quite high, reaching 28%. Cholesterol that is left uncontrolled can clog blood vessels, leading to stroke, atherosclerosis, angina, and heart attack. The effect of time delay on cholesterol levels states that there is a decrease and difference in the results of cholesterol levels when delayed based on storage time and temperature. The purpose of the study was to determine the comparison between the results of total cholesterol examination using serum and plasma EDTA immediately and stored for 4 hours. This study is analytic in nature using a cross sectional research design. The results showed in statistical tests using the Paired Sample T-Test test on serum samples immediately checked and stored for 4 hours found a value of ($p=0,015$) so that the value ($p>0,05$) and it can be concluded that there is no difference between total cholesterol levels in serum samples. EDTA plasma samples immediately examined and stored for 4 hours found the value ($p<0,001$), comparison of total cholesterol levels using serum and EDTA plasma samples immediately examined and stored for 4 hours found the value ($p<0,001$) so that the value ($p<0,05$) and can be concluded there is a difference between total cholesterol levels in EDTA plasma immediately examined and stored for 4 hours and serum and EDTA plasma immediately examined and stored for 4 hours. Serum samples showed an increase in cholesterol levels by 0,79% while EDTA plasma samples showed a decrease in cholesterol levels by 3,60%.

Keywords: Cholesterol, Serum, EDTA Plasma, 4 Hour Delay