

**KORELASI KADAR *FREE THYROXINE (fT4)* DAN *THYROID STIMULATING HORMONE (TSH)* SERUM DENGAN KADAR *LOW DENSITY LIPOPROTEIN (LDL)* DAN KOLESTEROL TOTAL PADA PASIEN HIPERTIROID DI RSUP
DR. M. DJAMIL PADANG TAHUN 2018**



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ABSTRACT

CORRELATION BETWEEN FREE THYROXINE (fT4) AND THYROID STIMULATING HORMONE (TSH) SERUM LEVELS WITH LOW DENSITY LIPOPROTEIN (LDL) AND TOTAL CHOLESTEROLS LEVELS IN HYPERTHYROID PATIENTS OF RSUP. DR. M. DJAMIL PADANG IN 2018

By
Yenny Handayani Sihite

Hyperthyroidism is characterized by an increase in the production of free T3 and T4 hormones due to structural and functional abnormalities in the thyroid gland, which affect cell metabolism including metabolism of LDL and total cholesterol. The diagnosis of hyperthyroidism requires the examination of TSH and fT4 levels. This study aims to determine whether there is a correlation between fT4 and TSH levels with LDL and total cholesterol levels in hyperthyroid patients.

This study was an analytic cross sectional approach in hyperthyroid patients. Samples were taken by total sampling technique from secondary data on the medical records of hyperthyroid patients treated at RSUP Dr. M. Djamil Padang in 2018.

The results of this study were of 185 hyperthyroid patients in 2018 found 26 people who met the inclusion criteria and did not have exclusion criteria. Based on the correlation test there is a moderate negative correlation ($r = -0.476$) between fT4 levels with LDL levels, there is a very strong negative correlation ($r = -0.827$) between fT4 levels with total cholesterol levels, there is a moderate positive correlation ($r = 0.581$) between TSH levels with LDL and total cholesterol levels.

This study shows there is a correlation between fT4 and TSH levels with LDL and total cholesterol levels.

Keywords : fT4 levels, TSH levels, LDL levels, total cholesterol levels, hyperthyroidism

ABSTRAK

KORELASI KADAR *FREE THYROXINE (fT4)* DAN *THYROID STIMULATING HORMONE (TSH)* SERUM DENGAN KADAR *LOW DENSITY LIPOPROTEIN (LDL)* DAN KOLESTEROL TOTAL PADA PASIEN HIPERTIROID DI RSUP DR. M. DJAMIL PADANG TAHUN 2018

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Hipertiroid ditandai dengan peningkatan produksi hormon T3 dan T4 bebas akibat kelainan struktural maupun fungsional pada kelenjar tiroid, yang mempengaruhi metabolisme sel termasuk metabolisme *Low Density Lipoprotein (LDL)* dan kolesterol total. Penegakan diagnosis hipertiroid memerlukan pemeriksaan kadar TSH dan *fT4* serum. Penelitian ini bertujuan untuk mengetahui adakah korelasi kadar *fT4* dan TSH serum dengan kadar LDL dan kolesterol total pada pasien hipertiroid.

Penelitian ini adalah analitik dengan pendekatan *cross sectional* pada pasien hipertiroid. Sampel diambil dengan teknik total sampling dari data sekunder pada rekam medis pasien hipertiroid yang dirawat di RSUP Dr. M. Djamil Padang tahun 2018.

Hasil penelitian ini adalah dari 185 pasien hipertiroid pada tahun 2018 didapatkan 26 orang yang memenuhi kriteria inklusi dan tidak memiliki kriteria eksklusi. Berdasarkan uji korelasi terdapat korelasi negatif yang sedang ($r = -0,476$) antara kadar *fT4* serum dengan kadar LDL, terdapat korelasi negatif yang sangat kuat ($r = -0,827$) antara kadar *fT4* serum dengan kadar kolesterol total, terdapat korelasi positif yang sedang ($r = 0,581$) antara kadar TSH serum dengan kadar LDL dan kadar kolesterol total.

Kesimpulan penelitian ini adalah terdapat korelasi antara kadar *fT4* dan TSH serum dengan kadar LDL dan kolesterol total.

Kata kunci : Kadar *fT4*, kadar TSH, kadar LDL, kadar kolesterol total, hipertiroid