Association between free thyroid hormones values and the lipid profile in middle-aged women with chronic symptoms(Article)

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Abstract [View references \(45\)](#)

Aims: To determine the association between the thyroid hormones(FT3, FT4 and TSH) and the lipid profile markers(HDL-c, LDL-c and triglycerides) values in middle-aged women with no metabolic disorders and recurrent chronic symptomatology. **Materials and Methods:** We carried out an analytical cross-sectional study in euthyroid women with recurrent chronic symptoms of at least six months with no apparent diagnosis who attended the endocrinological gynaecology outpatient service of a private clinic in Lima-Peru during 2012–2014. Participants who met the eligibility criteria were evaluated according to their thyroid hormones(FT3, FT4 and TSH) and lipid profile markers(HDL-c, LDL-c and triglycerides) values. We elaborated univariate/multivariate linear regression models to evaluate the association between the thyroid markers and the lipid profile levels. The reported association measure was the beta coefficient(β) with its respective p-value. **Results:** We analyzed 211 participants, the average age was 44.9 ± 14.0 (SD) years, the FT3 and FT4 mean levels were 3.2 ± 0.4 pg/mL and 1.2 ± 0.2 ng/dL respectively, while the TSH median was 2.8(IQR:1.9–4.0) μ U/mL. The mean or median levels of LDL-c, HDL-c and triglycerides were of 137.5 ± 37.9 mg/dL, 54.0 ± 15.0 mg/dL and 118.5(IQR:79.5–169.5) mg/dL respectively. In the multivariate linear regression model between the FT3 and LDL-c levels, we found that for each increase in a FT3 unit, the LDL-c values decreased on average 30.85 mg/dL($p < 0.01$). We found no statistically significant associations in the other multivariate models of linear regression, among the other thyroid hormones and lipid markers. **Conclusion:** We found an inverse association between the FT3 and LDL-c values in women with chronic gynaecological symptoms. © 2018 Diabetes India

SciVal Topic Prominence

Topic: [Hypothyroidism](#) | [Thyrotropin](#) | [subclinical hyperthyroidism](#)
Prominence percentile: 95.827

Reaxys Database Information

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Author keywords

Cholesterol, LDLDyslipidemiasThyroidTriiodothyronineWomen

Indexed keywords

EMTREE drug terms:

high density lipoprotein cholesterol
liothyroninelipidlow density lipoprotein cholesterol
hormonethyrotropinthyroxinetriacylglycerol

EMTREE medical terms:

adultArticlebody weight gainchronic diseasecross-sectional
studyeuthyroidismfatiguefemaleheadachehumanmajor clinical studypriority journal
diseasesymptomatologyvagina discharge

Chemicals and CAS Registry Numbers:

liothyronine, 6138-47-2, 6893-02-3; lipid, 66455-18-3; thyrotropin, 9002-71-5;
thyroxine, 7488-70-2

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