AUTOIMMUNE THYROIDITIS AND CARDIOVASCULAR RISK FACTORS

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Aims: To evaluate in autoimmune thyroiditis (AIT) the interrelationships between thyroid function, lipid profile and other cardiovascular (CV) risk factors such as C-reactive protein (CRP), homocysteine, lipoprotein (a), and insulin resistance (IR) markers, in patients with subclinical hypothyroidism (SH) and normal thyroid function (euthyroidism - EU). Patients and methods: We analyzed 114 patients with EU and 46 patients with SH. We recorded thyroid function tests, BMI, IR markers comprising the Homeostasis Model Assessment for IR (HOMA-IR), the Quantitative Insulin Sensitivity Check Index, the Hepatic Insulin Sensitivity Index, the Whole-Body Insulin Sensitivity Index, and the Insulinogenic Index. We also recorded the levels of total cholesterol (TC), HDL, LDL-cholesterol, triglycerides (TG), apolipoprotein B (ApoB), ApoA1, homocysteine, C-reactive protein (CRP), folic acid and vitamin B12 levels. A 75-g OGTT was performed and measurements of plasma glucose, insulin, and C-peptide were obtained at 0 minutes (‘), 30’, 60’, 90’ and 120’. Statistical analysis was performed with the Mann-Whitney, Chi-squared, Fisher and Spearman’s correlations tests. Data are expressed as mean±SD. A two-tailed ps0.05 was considered significant. Results: We did not found any statistically differences between the two groups relatively to the frequency of diabetes (29% vs 31%), impaired fasting glucose (33% vs 29%), impaired glucose tolerance (57% vs 54%). We also didn't found differences in HOMA-IR (2.5 vs 2.5) (75% vs 65%; 25% vs 36%; p=NS). The levels of CRP were significantly higher in the SH patients (0.499 ± 0.609 vs 3.56 ± 0.548mg/dl). Conclusions: In autoimmune thyroiditis, CRP levels are increased in patients with subclinical hypothyroidism. Other CV risk factors are similar in patients, independently of thyroid function. Further study are necessary to clarify the importance of CRP in the subclinical autoimmune thyroid dysfunction.