

Evaluation of interrelations between resistin, adiponectin, PAI-1, intercellular adhesion molecule and thyroid function in autoimmune thyroid disease

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Introduction

Thyroid function has a major effect on body weight, energy metabolism and adipocytes physiology.

Methods

We evaluated 98 patients with autoimmune thyroid disease divided into three groups: 30 who were euthyroid (TSH=0.35–4.94 UI/ml), 35 with subclinical hypothyroidism (hypoSC, TSH >4.94 UI/ml) and 33 with subclinical hyperthyroidism (hyperSC, TSH <0.35 UI/ml). We evaluated BMI, serum concentration of FT3, FT4, TSH, C-reactive protein (CRP), adiponectin, resistin, PAI-1 (plasminogen activator inhibitor-1) and ICAM-1. The statistical analysis was performed using ANOVA, Student's t-test and Spearman's correlations.

Objective

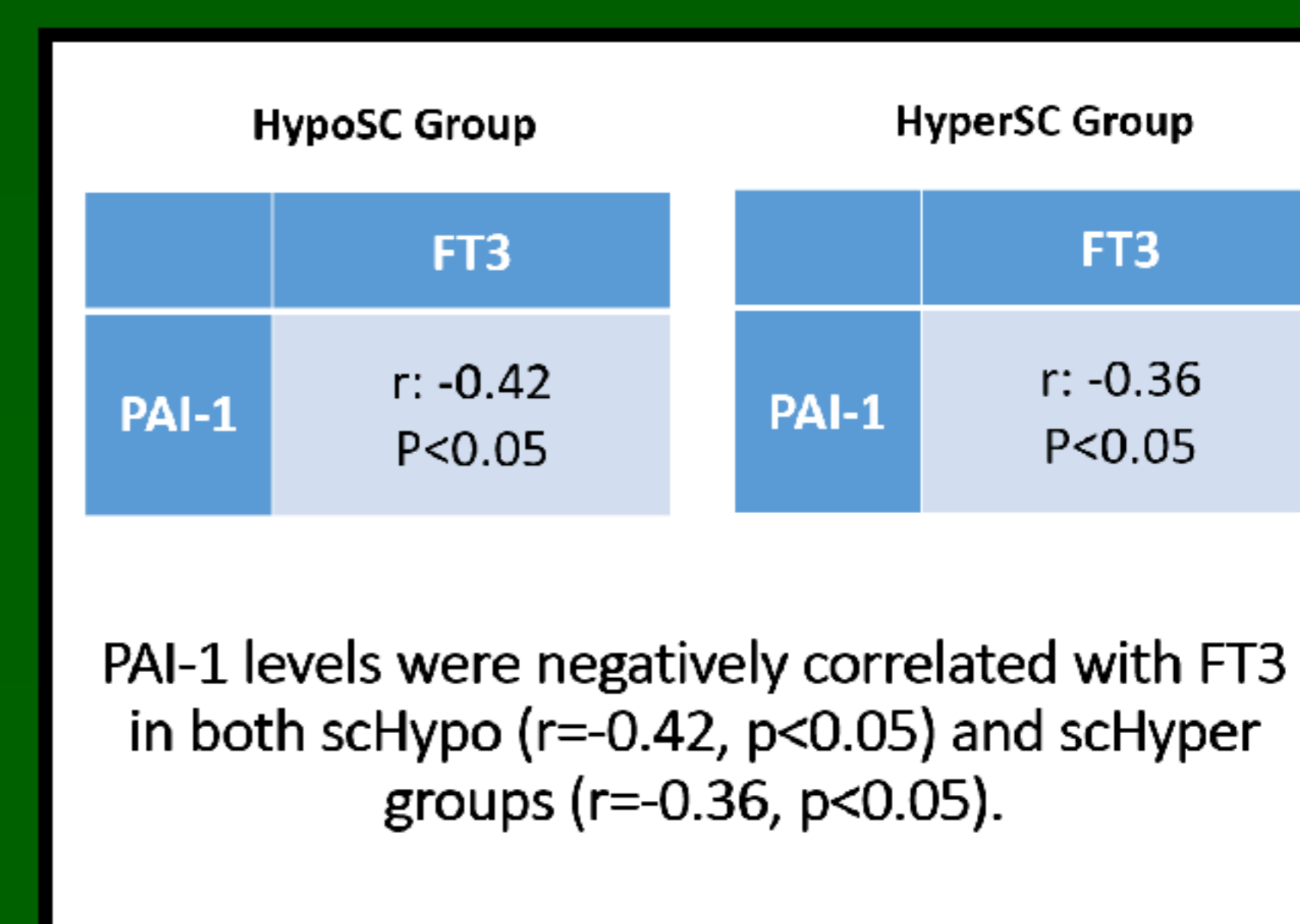
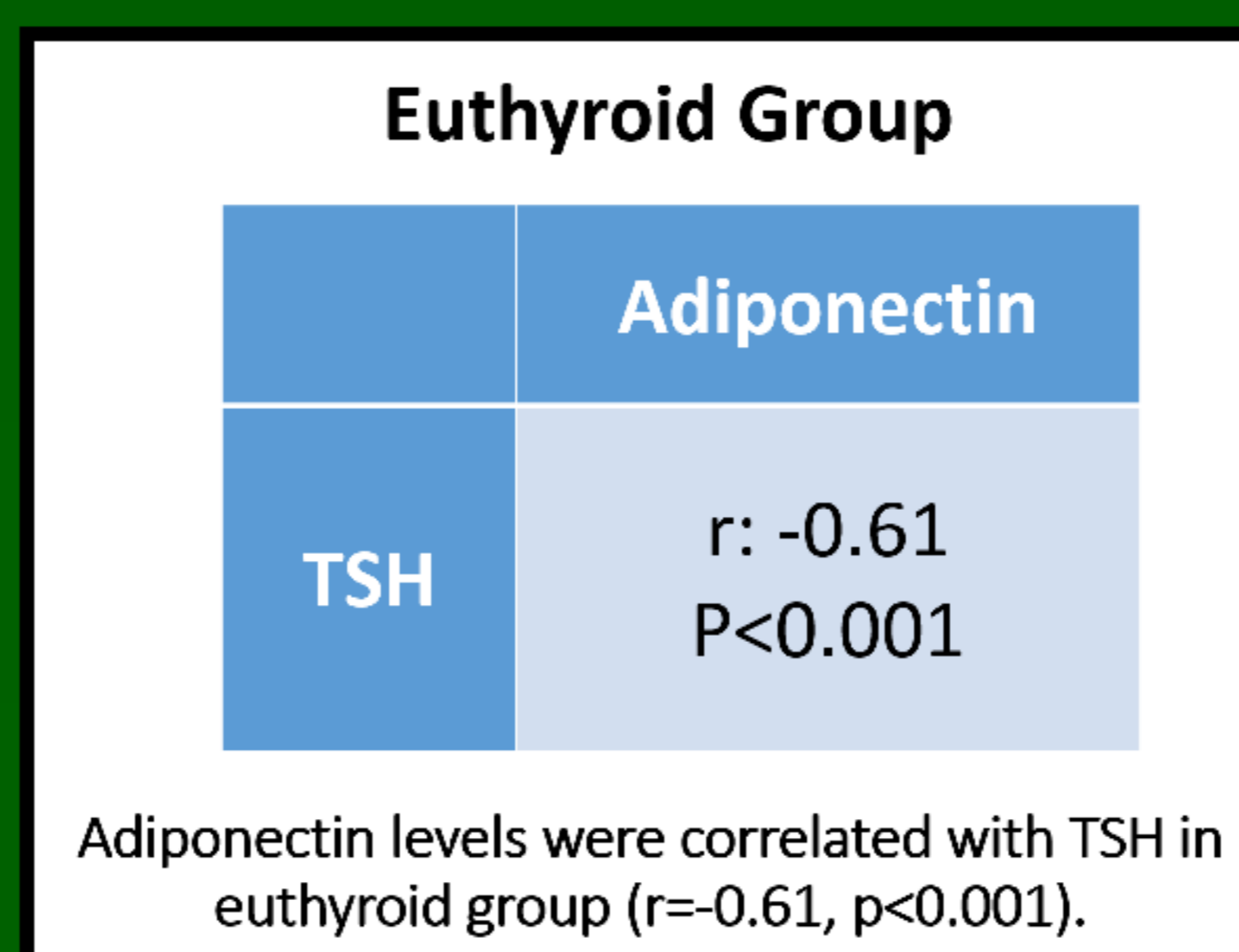
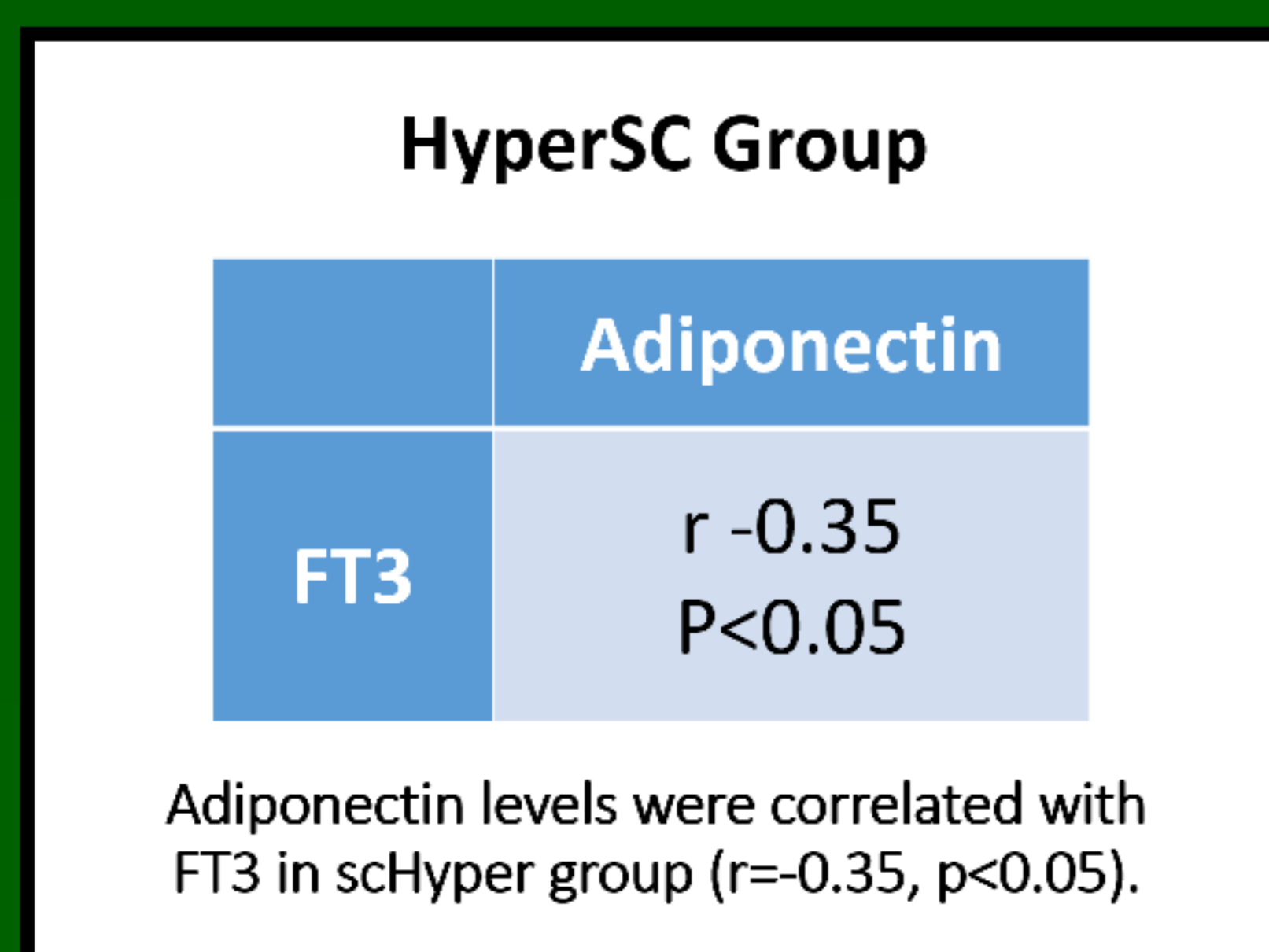
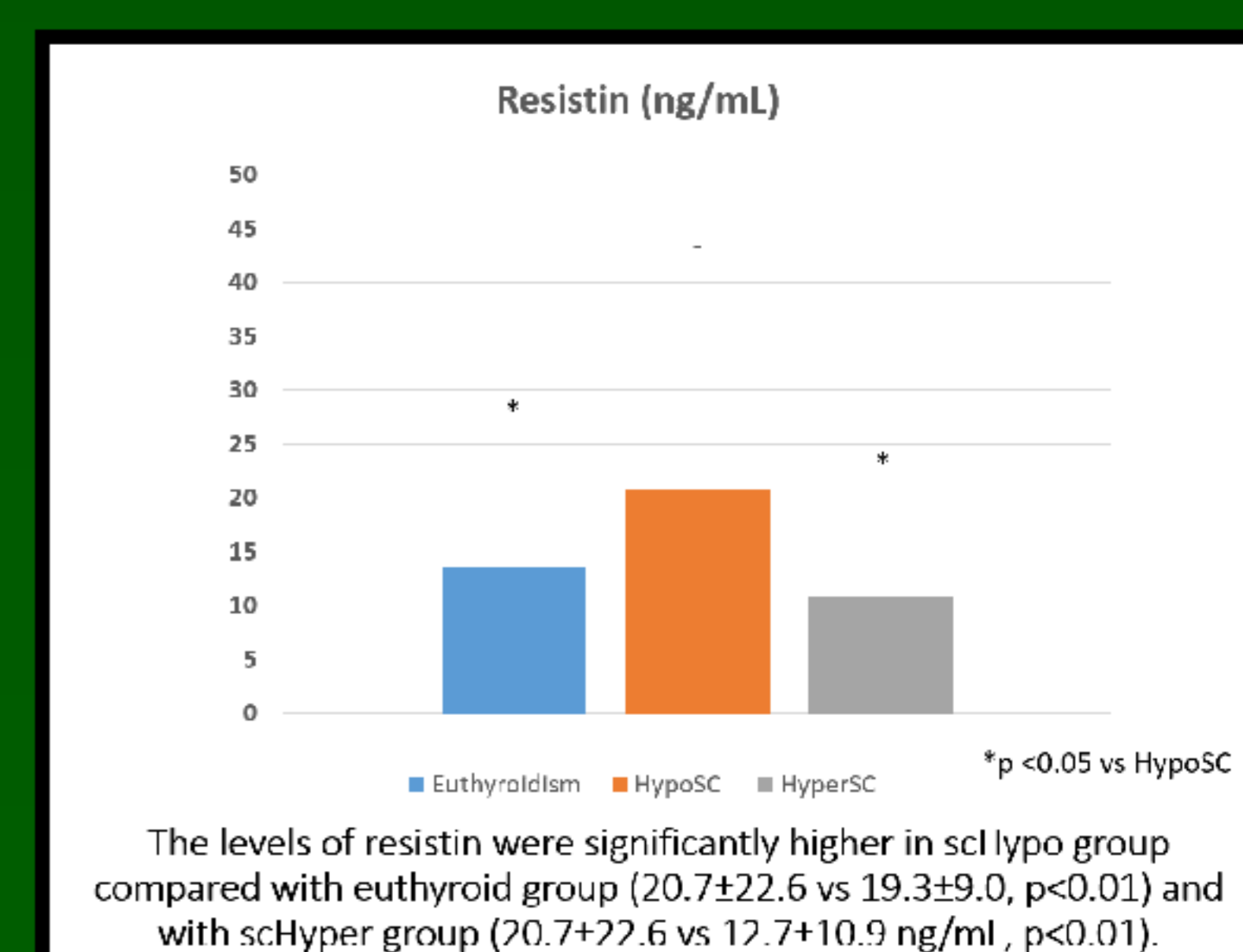
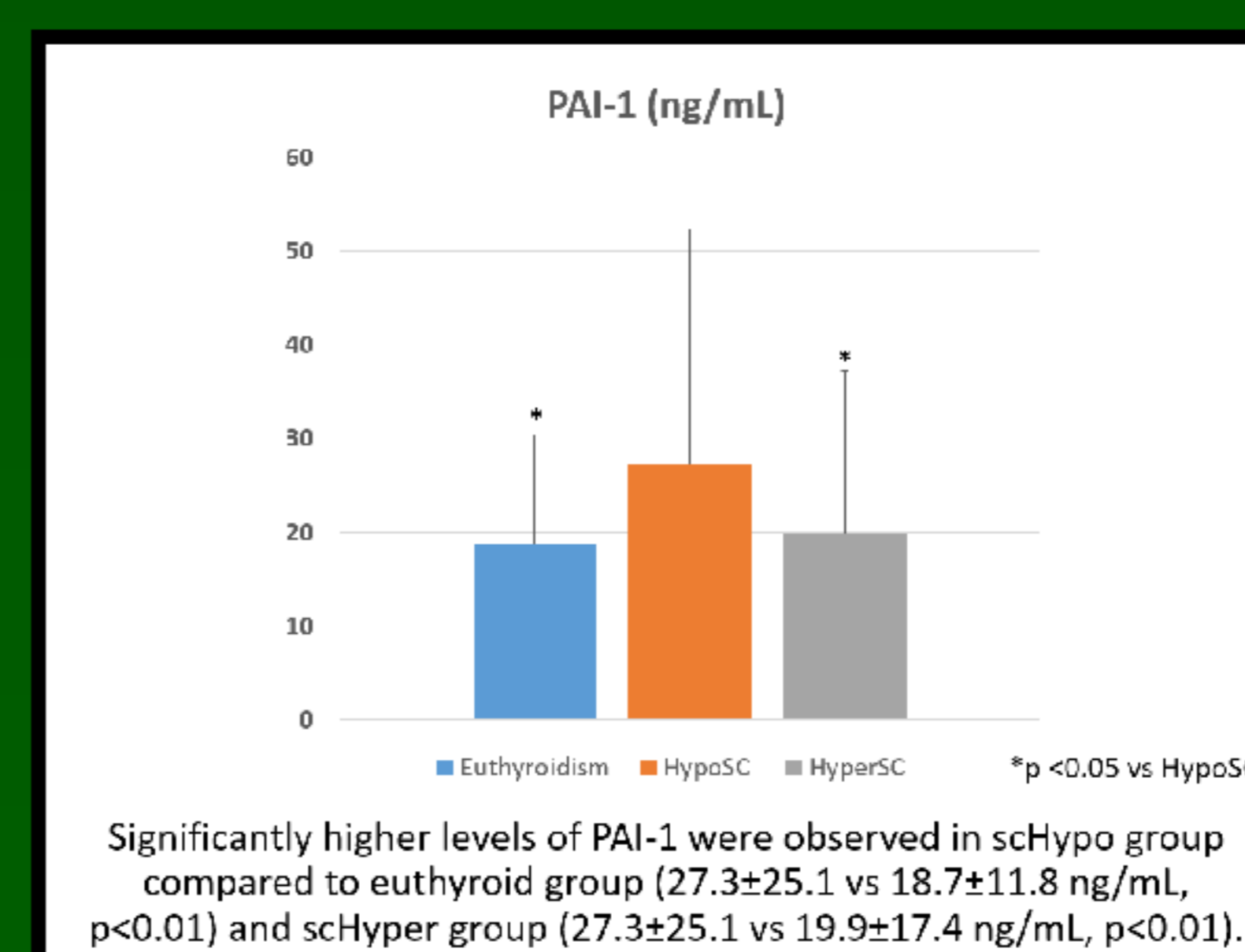
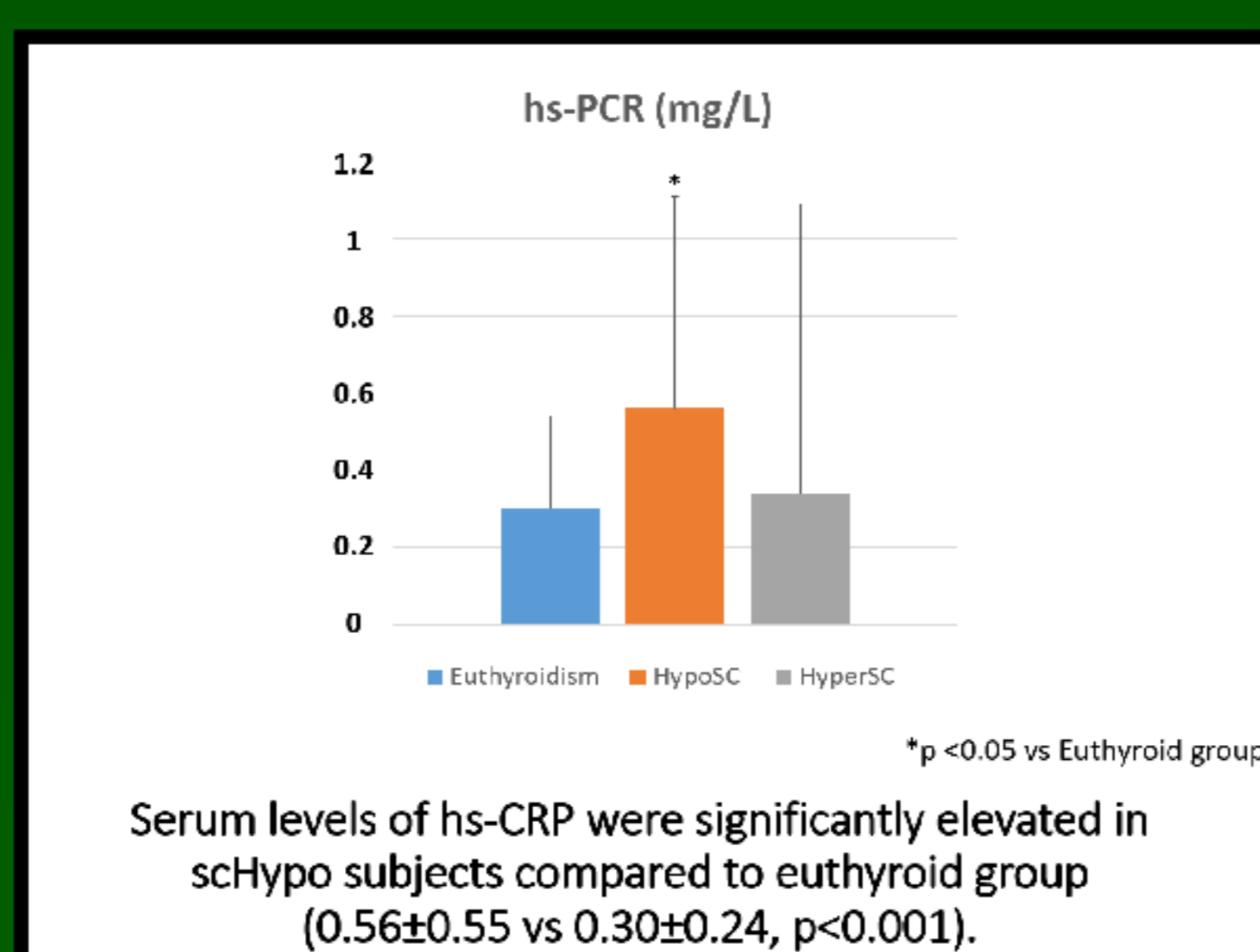
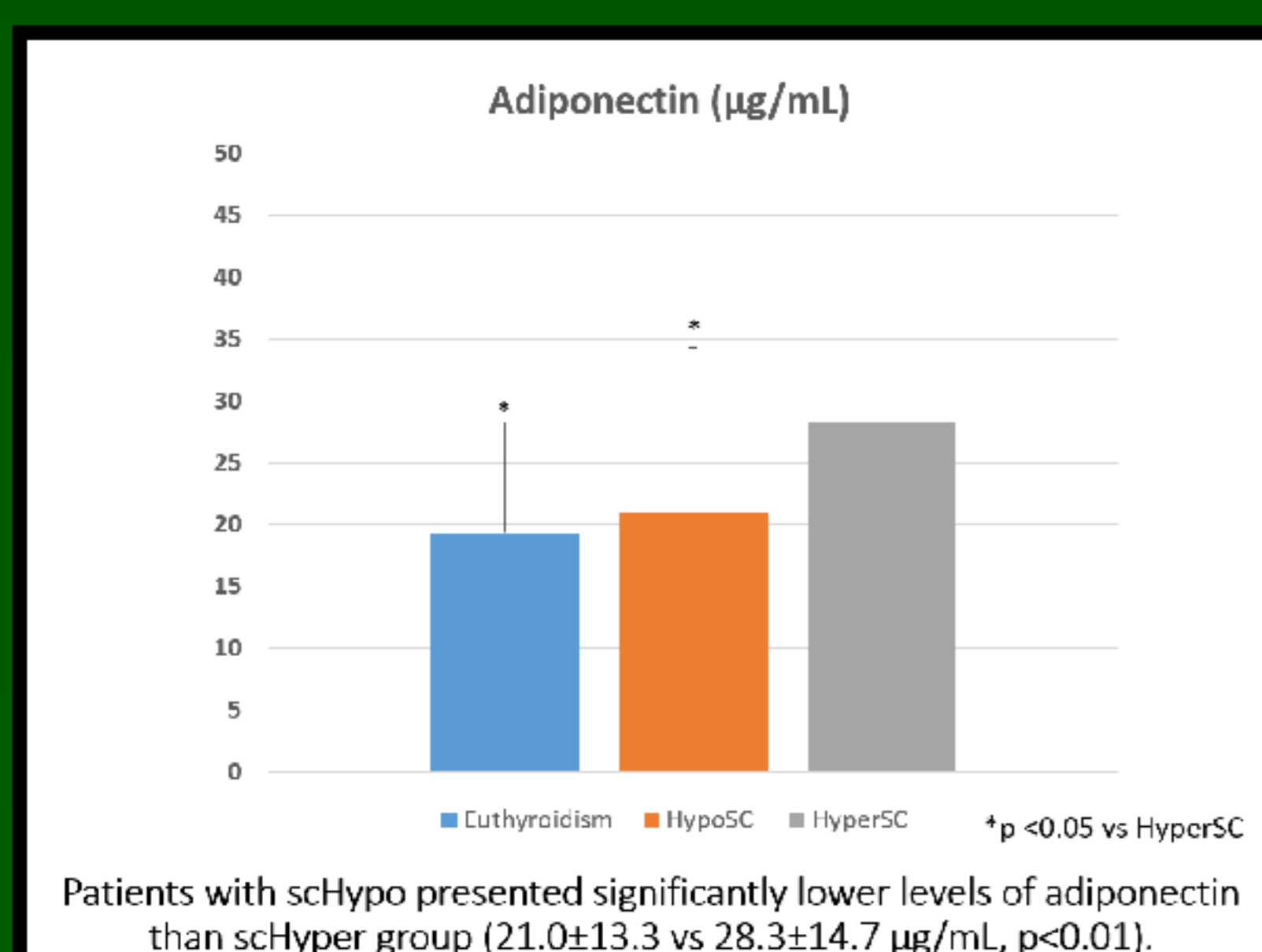
Our aim was to study the impact of subclinical thyroid dysfunction in plasmatic levels of adipokines and ICAM-1.

Results

Characteristics of the patients

	ScHypo group (n=35)	ScHyper group (n=33)	Euthyroid group (n=30)
Age (years)	46±17	44±13	50±16
Gender (male/female)	1/34	3/30	3/27
BMI (kg.m ⁻²)	30.3±9.3	25.3±4.7*	26.6±5.1
Total cholesterol	225.3±59.8	189±35.3	199.9±39.4
HDL	56.2±15.2	55.8±18.7	58.4±16.0
LDL	141.0±40.1	115.2±25.3	122.4±27.6
Triglycerides	131.8±92	101.4±109.4	112.4±55.8
Apo-A1	144.7±19.5	140.5±43.7	138.4±21.0
Apo-B	108.7±34.7	79.2±25.9	94±17.8
Lp(a)	24.6±30.1**	18.6±17.8**	43.1±39.3

*p <0.05 vs ScHypo
**p <0.05 vs Euthyroid



Conclusions

We found significantly higher levels of resistin and PAI-1 in subclinical hypothyroidism. The interrelations between thyroid function, adipokines and ICAM-1 may contribute to the metabolic and cardiovascular complications in autoimmune thyroid disease.

