

The relationship between procalcitonin and thyroid autoantibodies in patients with Hashimoto's thyroiditis.

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Objectives:

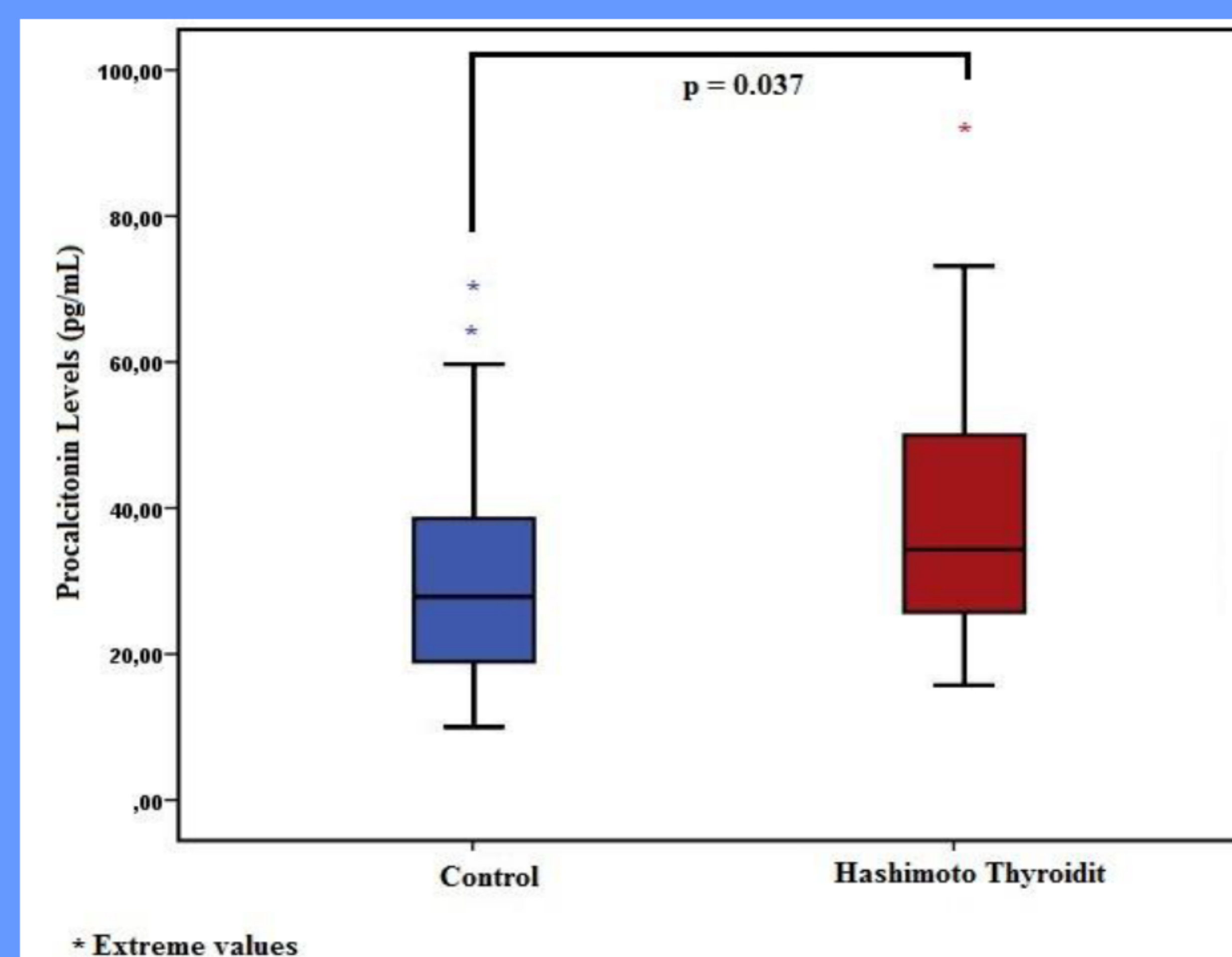
Procalcitonin (PCT) is often an increased acute phase reactant in the bacterial infection-related inflammation, and its serum level is reported elevated in several autoimmune disease. However, the level of PCT and its relationship with autoimmunity remain unknown in Hashimoto's thyroiditis (HT). Our objective was to investigate the serum levels of PCT and its association with autoantibodies in patients with euthyroid HT.

Methods:

A total of 80 participants, 40 patients were newly diagnosed with euthyroid HT and 40 healthy volunteers with no known disease. Thyroid function tests and thyroid autoantibodies are analyzed in hormone laboratory with Electro-chemiluminescence immunoassay. The serum levels of PCT were measured by ELISA kit.

Results:

Hashimoto's thyroiditis patients had higher median PCT levels than those of the control group (34.3 pg/mL vs 27.8 pg/mL respectively; $p=0.037$). In the entire population and HT group, the PCT level was positively correlated with systolic and diastolic blood pressures (The entire population; $r:0.320$, $p=0.004$; $r=-0.267$, $p=0.017$; HT; $r:0.355$, $p=0.025$; $r=0.420$, $p=0.007$). PCT and TPO levels were identified to be an independent predictor in diagnosis of HT in the multivariate logistic regression model. An increase of one unit in the PCT level increased the risk for HT by 1.478 times and an increase of one unit in the anti-TPO level increased the risk for HT by 1.164 time when the other risk factors were kept constant.



Conclusions:

Procalcitonin being the independent predictor of HT, as indicated in the multivariate regression analysis, suggests that PCT could be a hormone associated with the autoimmunity. Extensive and further researches are needed in this field.

References:

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