

Skin changes in the neck and selenium content in patients with thyroid diseases

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ABSTRACT

Purpose: Occurrence of skin changes, in the form of discolouration on neck and in form of a so-called "thyroid shadow", was observed in patients with: Hashimoto's disease, Graves' disease, struma nodosa euthyrotica or hyperthyreosis. Effects of selenium status and smoking on the risk of those skin changes were investigated.

Materials and methods: The study group consisted of 267 patients with different kinds of thyroid disease. The control group included 34 healthy people. Selenium concentrations in serum were determined by electrothermal absorption spectrometry method.

Results: Thyroid shadow was observed in 70 percent of the subject. Selenium levels in serum were lower in patients with thyroid disease ($65.051 \pm 16.70 \mu\text{g/L}$), especially in smokers ($62.477 \pm 15.21 \mu\text{g/L}$) than in the control group ($75.162 \pm 19.92 \mu\text{g/L}$).

Conclusions: Thyroid shadow syndrome would be the diagnostic signal of thyroid diseases, especially Hashimoto disease. Selenium status is important in the studied thyroid diseases. Cigarette smoking decreases the concentration of selenium in the serum of patients with thyroid diseases.

Keywords: Thyroid shadow, selenium, smoking
