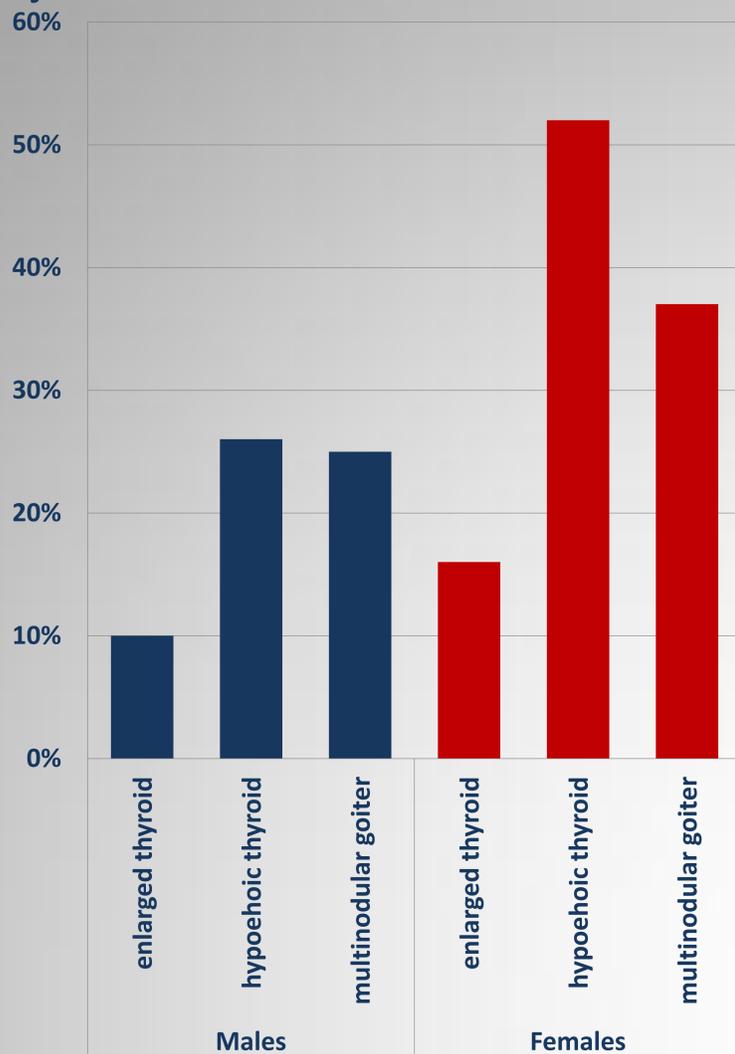


THYROID HORMONE CONCENTRATION AND ULTRASONOGRAPHIC FINDINGS IN MIDDLE-AGED LITHUANIAN MALES AND FEMALES FROM GENERAL POPULATION

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1 Figure. Ultrasonographic findings of 395 study subjects



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Objective: Evaluation of thyroid function and thyroid ultrasonographic features in 48-50-year-old people from general population in Lithuania.

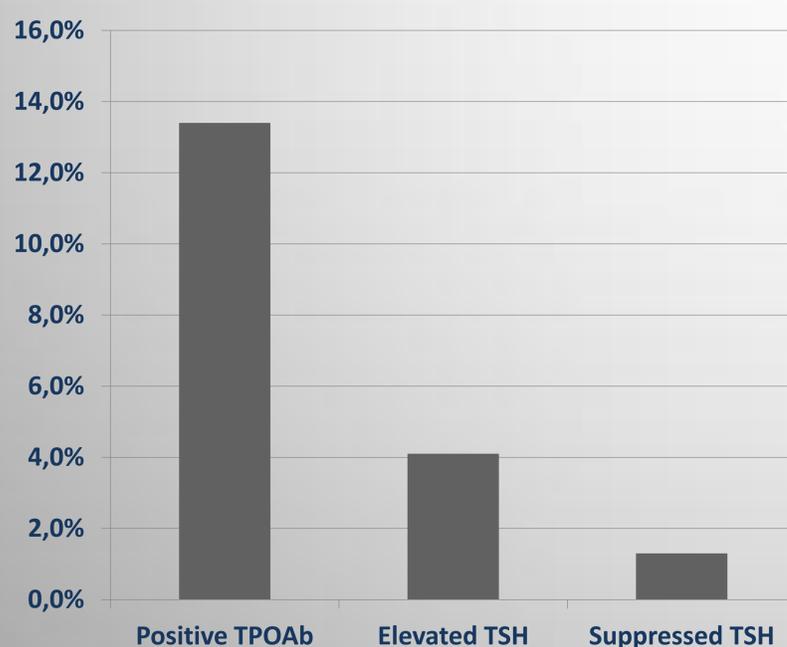
Methods: During a one year period 395 randomly selected 48-50-year-aged men (169) and women (226) were enrolled into the study. Conventional thyroid ultrasound was performed and blood samples for hormone analysis were collected. TSH was analyzed using immunoradiometric method, FT4 and thyroid peroxidase antibodies (TPOAb) – radioimmunoassay (reagent kits of „IZOTOP“, Hungary).

Results: Mean thyroid volume of males and females was 16.9 ± 6.7 ml and 12.5 ± 5.3 ml, respectively. Thyroid volume was larger ($p < 0.001$) in men. 9.5% ($n=16$) males and 15.5% ($n=35$) females had enlarged thyroid gland, enlargement was more common in females ($p < 0.01$). Thyroid hypoechoic echotexture was more common in females (51.8%, $n=117$ vs 26%, $n=44$), $p < 0.001$.

Thyroid nodes were detected in 37.2% ($N=84$) of females and in 24.9% ($N=42$) of males, overall in 31.9% ($N=126$) of study subjects. Thyroid nodes were more frequently diagnosed in females ($p < 0.001$) than in males.

Mean hormone levels were: TSH 1.65 ± 1.6 mU/l, FT4 14.64 ± 2.63 pmol/l. Mean TPOAb in the study group was 52.86 ± 179.5 kU/l. 53 study participants (13.4%) had positive TPOAb. 16 (4.1%) individuals had elevated TSH ($TSH > 3.75$ mU/l), in 5 (1.3%) individuals TSH was suppressed ($TSH < 0.27$ mU/l).

2 Figure. Thyroid hormones and TPOAb in the study group



Conclusions:

- Our findings that enlarged thyroid, hypoechoic thyroid, and multinodular goiter is more common in females than in males correspond to thyroid investigation results in other similar studies.
- Prevalence of thyroid nodes (31.9%) seems to be slightly higher than in other populations. One possible explanation is that a universal salt iodization program in Lithuania has been introduced only recently.