

The natural history of subclinical hyperthyroidism-a single centre experience

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Introduction

- The possibility of progression of subclinical hyperthyroidism (SH) to overt hyperthyroidism (OH) is a critical point in deciding whether to treat this situation.

Aims

- The aim of this study was to evaluate the rate of progression of SH to OH and the factors influencing this outcome

Patients and methods

- This was a retrospective study at an endocrine referral service in Northern Greece.
- Data from patients with SH diagnosed between 1996 and 2011 were extracted from the department's electronic database.
- **Exclusion criteria:**
 - Past history of thyrotoxicosis treated with radioiodine, surgery or antithyroids
 - Thyroiditis
 - Pregnancy/postpartum state
 - Severe illness
 - Pituitary disease

References

Schouten B, et al. Clin Endocrinol (Oxf) 2011;74:257-261
Col NF, et al. JAMA 2004;291:239-243
Biondi B, et al. Endocr Rev 2008; 29:76-131

Results

- 40 patients (37 females/3males) aged 53.9 ± 14.3 years (range 25-76) were included.
- Mean **TSH values** at baseline were 0.19 ± 0.13 mIU/l.
- In 18 patients (45%) the **diagnosis** was subclinical Graves' disease (GD), 13 (32.5%) multinodular toxic goitre (MTG) and 9 (22.5%) toxic adenoma (TA).
- **Progression to OH** was seen 5 patients, (12.5%), in 2 (11.1%) with GD, 2 (22%) with TA and 1 (7.7%) with MTG, during a mean follow-up time of 34.2 ± 21.3 months.
- OH was observed in 4/36 (11.1%) at 1 year, 1/23 (4.5%) at 2 years, 0/15 (0%) at 3 years and 1/17 (5.9%) at 5 years.
- Three of 5 patients with SH progressed to OH in 6 months.
- Interestingly, 8 patients at 1 year (22%) **normalized** thyroid function, 5 (23%) at 2 years, 4 (27%) at 3 years and 6 (35%) at 5 years of follow-up.
- Five of seven (71.4%) with available follow-up data remained euthyroid during follow-up.

Conclusions

- ✓ GD was the most common etiology of SH.
- ✓ A very small proportion of patients progressed to OH over 5 years.
- ✓ However, a considerable amount of patients with SH returned to normal thyroid function either for the remainder of follow-up, or only to return to SH state.