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 radiiodine, surgery or antithyroids
- Thyroiditis
- Pregnancy/postpartum state
- Severe illness
- Pituitary disease

Results

➤ 40 patients (37 females/3 males) 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.

References

Col NF, et al. JAMA 2004;291:239-243