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EMAS position statement: Thyroid disease and menopause.

Maturitas. 2024 Jul;185:107991.

Abbreviations:

TSH = thyroid-stimulating hormone; fT3 = free triiodothyronine; fT4 = free thyroxine.

BACKGROUND

Thyroid disorders are common in women and some symptoms are similar to those of the menopause, such as menstrual cycle disturbances, mood changes, increased sweating, sleep disturbances, hair problems and reduced quality of life. For this reason, the European Menopause and Andropause Society (EMAS) has recently published a position paper. The most important aspects for practice are summarised below.

SUMMARY

1) Prevention

- Surgical menopause, early menarche and late natural menopause are associated with an increased risk of thyroid cancer. Thyroid screening for nodules is recommended in women with a history of these conditions.

2) Laboratory diagnostics

- Biotin intake may lead to false TSH, fT3, fT4 and total T4 values in immunoassays. Biotin preparations should therefore be discontinued 2-3 days before blood sampling.
- Thyroid dysfunction affects lipid status. In menopausal women with thyroid dysfunction, lipid status should be checked and thyroid status should be taken into account when treating dyslipidaemia.
- Oral oestrogens affect thyroid function in women with hypothyroidism by increasing thyroxine binding globulin (TBG). This may require adjustment of the levothyroxine (LT4) dose. Transdermal oestrogen has no effect on thyroid function.

3) Therapeutic indication for thyroxine in hypothyroidism

- Subclinical hypothyroidism may exacerbate the adverse effects of low oestrogen concentrations and increase cardiovascular risk.- Despite the beneficial effects of LT4 on metabolic parameters and non-alcoholic fatty liver disease (NAFLD), treatment is not associated with a lower risk of cardiovascular mortality. On the contrary, overtreatment may affect bone density and cardiovascular risk.
- Based on NICE guidelines, LT4 treatment should be considered for subclinical hypothyroidism with repeated TSH ≥ 10 mU/l. Older patients require an individualised approach. A starting dose of 25-50 μ g LT4/day is recommended for women >65 years of age with a history of cardiovascular disease.
- Some physicians recommend combination LT4/liothyronine (LT3) therapy for patients who have an inadequate response to LT4. However, there is insufficient data on its use in menopausal women.

4) Hormone replacement therapy (HRT) in menopause

- A meta-analysis of nine cohort studies found no association between HRT and the risk of thyroid cancer in postmenopausal women.
- HRT does not affect the size of the thyroid gland or the size of thyroid nodules.
- There are no known interactions between HRT and drugs used to treat thyroid disease.
- HRT is a safe treatment option for menopausal women with thyroid disease.

COMMENT

Untreated thyroid disease and overtreatment can have adverse effects during the menopause, such as cardiovascular risks and reduced bone density. The EMAS position paper provides valuable advice for counselling menopausal women with thyroid disorders. Close collaboration with internal endocrinology is desirable.