

*10-minute consultation***Newly diagnosed hypothyroidism**

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A 46 year old woman has returned to you for the results of blood tests. Two weeks earlier she had complained of increasing tiredness, constipation, dry skin, and weight gain. Thyroid function tests at her previous consultation showed concentrations of free thyroxine (T₄) of 7 nmol/l and of thyroid stimulating hormone (TSH) of 38 mU/l. Her mother had Graves' disease and was treated with radioiodine ablation.

What issues you should cover

Underlying causes—The commonest cause of primary hypothyroidism is autoimmune thyroiditis. Hashimoto's thyroiditis is the combination of autoimmune thyroiditis and goitre; a positive test result for the thyroid autoantibodies antithyroglobulin and antiperoxidase will confirm the diagnosis. An enlarged, tender thyroid may indicate subacute thyroiditis.

Current and previous drug use—Amiodarone, lithium, interferon alfa, interleukin 2, macrophage colony stimulating factor, and oral and topical iodine are recognised causes of thyroid dysfunction. Check for history of thyroid surgery or head and neck irradiation and radioactive iodine therapy for thyrotoxicosis.

Menstrual and obstetric history, including amenorrhoea and menorrhagia—A self limiting period of hypothyroidism is common in the course of subacute thyroiditis and in the syndrome of "painless thyroiditis," including the postpartum variant. In these cases transient biochemical hypothyroidism does not warrant treatment unless the symptoms are severe.

Psychological needs—Assess her psychological needs and, if necessary, provide information on access to a specialist nurse or a patients' self help group.

What you should do

- Examine her neck for presence or absence of goitre or a thyroidectomy scar. Examine her generally for features of associated organ specific autoimmune diseases such as vitiligo and assess her cardiovascular and nervous systems for bradycardia, proximal weakness, peripheral neuropathy, carpal tunnel syndrome, and Pemberton's sign.
- Examining her eyes for thyroid associated ophthalmopathy may give a clue to the underlying cause. It is more common in Graves' disease (>90% of patients) but can occur in patients with chronic autoimmune thyroiditis (4-9%). Signs include proptosis, periorbital oedema, conjunctival injection and oedema, restrictive extraocular myopathy, and exposure keratitis.
- The investigation should include fasting lipid profile, fasting glucose, glycosylated haemoglobin, and tests for organ specific autoimmune diseases. Primary hypothyroidism is associated with hypercholesterolaemia, and type 1 diabetes mellitus and pernicious anaemia are more common in patients with auto-

Indications for referral of adults with hypothyroidism to a specialist

- Pregnant or post partum
- Evidence of pituitary disease
- Ischaemic heart disease
- Treatment with amiodarone or lithium

Websites with information on thyroid disorders

Thyroid UK, a support group for patients (www.thyroiduk.org/)

The US site About.com has excellent information (www.thyroid.about.com/)

British Thyroid Foundation (www.btf-thyroid.org/)

The Royal National Institute for the Blind website's "Eye info" section has information on thyroid eye disease (www.rnib.org.uk)

immune thyroid disease. Only certain patients will need to be referred to a specialist for isotope uptake studies and thyroid antibody assays (see box).

- Prescribe oral thyroxine 50-100 µg daily. The initial dose in patients with ischaemic heart disease should be 25 µg daily. Diarrhoea, nervousness, rapid pulse, insomnia, tremors and, sometimes, anginal pains indicate the dose is too high. Reduce the dose or treatment for one or two days and start again at a lower dose.
- You will need to monitor treatment with tests of serum TSH concentrations. When the concentration is within the reference range the T₄ concentration will usually be in the upper half or slightly above the reference range. If you change the thyroxine dosage, no measurement of TSH concentration or further dosage change should be made for 4-6 weeks, because the half life of TSH is about 10 days and changes in dosage will be reflected slowly in serum TSH concentrations.
- Discuss and agree a clear treatment and monitoring plan with her. Explain that treatment is likely to be life long, that treatment at the correct dosage has no serious side effects, and that the prognosis is excellent. Tell her that it may take a few weeks for thyroxine to begin working and that she should not expect all symptoms to disappear within a few days of starting treatment.
- Tell her that she is entitled to free prescriptions and to fill in the prescription charge exemption certificate.

Useful reading

Dayan CM, Daniels GH. Chronic autoimmune thyroiditis. *N Eng J Med* 1996;335:99-107

Lindsay RS, Toft AD. Hypothyroidism. *Lancet* 1997;349:413-6

This is part of a series of occasional articles on common problems in primary care

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