Nonsurgical treatment of multinodular nontoxic goitre

Sporadic multinodular goitre is common in the UK, affecting up to 4% of the population. Spontaneous reduction in goitre size is unlikely and steady growth at about 20% per annum may be seen if untreated. Treatment is indicated for pressure symptoms on the trachea, asymmetrical increase in size suggesting underlying malignancy, a sudden increase in size due to colloid degeneration or haemorrhage, for cosmetic reasons, or to treat patient anxiety.

Traditionally, surgery has been the mainstay of treatment and has usually been a bilateral subtotal thyroid lobectomy leaving approximately 4 g of tissue on either side. Although the procedure rapidly relieves pressure symptoms, the goitre recurs in 10–15% of patients, the exact number depending on definition and length of follow-up but independent of whether thyroxine is given after operation. Many surgeons would employ a total lobectomy on one side and subtotal thyroidectomy on the other to make re-operative surgery safer, but the latter situation increases the possibility of complications (recurrent laryngeal palsy, hypothyroidism, and hypocalcaemia). Complications are commoner with increasing gland size, patient age and comorbidity. Additionally, some patients do not wish to undergo surgery.

Learning points

- sporadic multinodular goitre is common in the UK
- the majority can be managed conservatively
- surgery remains the mainstay of treatment
- in selected patients, radioiodine may be an option

1 Berghout A, Wiersinga WM, Drexhage HA, Smits NJ, Touber JL. Comparison of placebo with L-thyroxine alone or with carbimazole for treatment of sporadic non-toxic goitre. *Lancet* 1990; 336: 193–7.

2 Gharib H, James EM, Charboneau JW, Naessens JM, Offord KP, Gorman CA. Suppressive therapy with levothyroxine for solitary thyroid nodules. A double-blind controlled clinical study. *N Engl J Med* 1987; 317: 70–5.

Are there any reliable non-operative approaches? Thyroid suppression with either thyroxine or triiodo-L-thyronine, although effective transiently in diffuse nontoxic goitre, is probably without benefit in multinodular goitre.^{1–3} This is because it is largely normal thyroid tissue that is suppressed leaving the colloid nodules to expand and calcify. In iodine-deficient goitre, dietary supplementation alone may be appropriate. Recently, Nygard and others reported the use of ¹³¹I in the successful treatment of 69 patients with growing multinodular nontoxic goitre causing local compression symptoms or cosmetic problems.⁴ A single intravenous dose of 3.7 MBq ¹³¹I/g thyroid tissue was used (30 mCi maximum) and the patients were followed for a median of 48 months. A few patients needed repeat treatment. The overall decrease of ultrasonically determined thyroid volume was 34% after 12 months and 55% after 24 months. There were no cases of exacerbation of obstructive symptoms: the 5-year risk of hypothyroidism was 22%. Symptom relief was in general good.

In conclusion, the majority of patients with sporadic nontoxic multinodular goitre should be treated by unilateral total thyroid lobectomy and contralateral subtotal lobectomy. In some unfit patients or those with recurrent problems radioiodine deserves further investigation as an option, perhaps initially in a controlled clinical trial setting.

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3 Hegedus L, Hansen JM, Veiergang D, Karstrup S. Does prophylactic thyroxine treatment after operation for non-toxic goitre influence thyroid size? *BMJ* 1987; 294: 801–3.

4 Nygard B, Hegedus L, Gervil M, Halgrim H, Soe-Jensen P, Hansen JM. Radioiodine treatment of multinodular non-toxic goitre. *BMJ* 1993; 307: 828–32.

Porphyria and vampirism: another myth in the making

The release of the film *The Madness of King George* has brought the disease of porphyria full in the public domain. From the first signs of the King's illness, his gastrointestinal distress, his blue-tinged urine, to his complete mental collapse and subsequent, almost miraculous, recovery, the film paints a classic portrait of porphyria. However, the use of this rare disease to explain one of history's great aberrations has also been extrapolated by the media, and erroneously so, to the realm of the vampire.

Although a fascinating concept, for most of us today, the vampire is a myth, easily dismissed as mere fiction to be enjoyed at the cinema or on the printed page. However, during the 18th century, the age of the folkloric or mythic

vampire, Eastern Europe in particular, was rife with reports of vampire citations. So prevalent was the belief in the existence of a literal vampire, that the Austrians, occupying Serbia during the 1730s, dispatched a team of medical officers to a Serbian town to investigate the weekly exhumations and 'killing' of the dead.¹

One modern but now prevalent explanation of the myth can be summed up in one word, *porphyria*. The genesis of this theory might have begun in an article in the *New York Times* in May 1985. In a speech to the American Association for the Advancement of Science, Dr David H Dolphin announced that 'werewolves and vampires those dreaded beasts of folklore and superstition, may have been nothing