Nodular pretibial myxoedema after treatment of Graves disease with radioactive iodine ablation therapy

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DESCRIPTION

A 45-year-old African-American woman presented with a 2-month history of bulging eyes, neck swelling, increased appetite and oligomenorrhea. On examination, she had fine hand tremors and bilateral proptosis with lid lag. The thyroid gland was diffusely enlarged. Laboratory test revealed suppressed thyrotropin-stimulating hormone and elevated free thyroxine levels at 7.4 ng/dL (normal 0.76–1.46 ng/dL). She was diagnosed with Graves disease and treated with 15.3 mCi of radioactive iodine therapy. She had normalisation of thyroid function tests after the treatment.

Eight months later, she noted multiple, non-tender, raised nodular lesions in her shins bilaterally (figure 1A). Differential diagnosis included chronic erythema nodosum and nodular form of pretibial myxoedema. Biopsy was performed and cytopathology revealed marked dermal mucin, consistent with pretibial myxoedema (figure 1B). She was prescribed clobetasol ointment for her lesions.

Dermopathy occurs in less than 5% of patients with Graves disease. Typical lesion is diffuse, non-pitting

oedema with 'orange-skin' appearance involving the shins. Nodular lesions are rare, in less than 10% of patients with pretibial myxoedema.

This case emphasises the atypical signs of Graves disease and changes that can occur in the skin even after Graves disease has been successfully treated. Physicians following patients with Graves disease after definitive management of the same should be aware of this rare form of thyroid dermopathy.

Learning points

- ▶ Nodular pretibial myxoedema is a rare form of thyroid dermopathy in patients with Graves disease.
- ▶ Nodular pretibial myxoedema can occur in patients after radioactive iodine therapy.
- ▶ It can present as nodular lesions in front of the shins mimicking erythema nodosum in appearance and can be treated with topical steroids if symptomatic.

Figure 1 (A) Photograph of lower extremity showing raised nodular lesions of the shin. (B) Histopathology image demonstrating dermal mucin.

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