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A case of hyperthyroidism presenting as haematological malignancy

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Case history

A 30 yr old man was referred to the Haematology department with a history of weight loss, lethargy, axillary lymphadenopathy, left breast mass, and an abnormal blood film. A haematological malignancy was suspected. Renal and liver function, haematinics, serum calcium and chest radiograph were normal. Examination at the haematology clinic confirmed gynaecomastia and axillary lymphadenopathy. Surgical biopsy of these lesions was performed; histology showed inflammatory changes with no evidence of malignancy

Further investigations revealed hyperthyroidism: free T4 44.8 pmol/l, free T3 18.2 pmol/l, TSH 0.01 mU/l. The patient was referred to the endocrine clinic; a five month history of anorexia, weight loss, heat intolerance and palpitations, and the development of left breast swelling was elicited. There was a strong family history of thyroid disease. Examination demonstrated the presence of a small symmetrical goitre. He was commenced on carbimazole 40 mg daily, and at three-month review, he was well with reversal of previous weight loss and improvement in thyroid function; haematological parameters returned to normal on successful treatment of the thyrotoxic state.

Comment

Thyrotoxicosis is a recognised cause of gynaecomastia, a result of increased SHBG levels. Thyrotoxicosis may also cause a number of changes of the peripheral blood film, including microcytosis, anaemia, lymphocytosis and neutropenia. These abnormalities generally resolve with anti-thyroid treatment. A low neutrophil count is not a contraindication to carbimazole therapy. Full blood count should be performed prior to commencing carbimazole therapy, given the association with agranulocytosis, albeit rare.