

## Lymphadenopathy as a Presenting Sign of Thyrotoxicosis

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**A case of thyrotoxicosis in a 21-year-old lady, which presented as generalised lymphadenopathy, primary infertility, generalised weakness and weight loss.**

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### THE CASE

A 21-year-old lady, married for the past three years, previously healthy, started complaining of generalised weakness, weight loss, night sweats and secondary amenorrhoea for the past two months.

Her previous history included primary infertility of two years duration; although she has been married for the last three years, her husband spent the second 6 months of marriage on duty in Croatia with UN forces.

On examination, the patient was oriented, alert, looked wasted, was not pale or jaundiced. She looked slightly anxious, but was not in distress. Her vital signs were normal with a pulse rate of 95/min.

Head and neck examination was normal except for enlarged multiple posterior cervical, submandibular, submental and supraclavicular lymph nodes measuring 1-1.5 cm. They were mobile, not tender, not matted and with firm texture. The thyroid was not enlarged.

There were multiple axillary and inguinal lymph nodes with the same character as above. No hepatosplenomegaly was detected. The palms were moist. Other systems were normal. Investigations showed a normal complete blood count, normal kidney and liver function tests.

Brucella, monospot, toxoplasma, HBs Ag, HIV, ANA and RF were negative. Chest X-Ray was normal with negative purified protein derivate (PPD) test. Abdominal and pelvic ultrasound were normal. A fine needle aspirate from the supraclavicular lymph node revealed pleomorphic cells. Lymph node excisional biopsy from the right axilla showed only reactive lymph nodes.

The patient was discharged upon her request, but she did not return for follow-up for six months when she presented complaining of further loss of weight and severe irritability because her husband had remarried. Second physical examination showed a pulse rate of 100/min, weight 48 Kg, and fine tremors were noted on both hands. A repeat lymph node biopsy showed reactive

lymph nodes with no evidence of malignant cells. Bone marrow biopsy revealed cellular bone marrow due to increase in all elements. There was no infiltration by malignant cells. Abdominal and chest computerised tomography scan was normal. Thyroid ultrasound was normal while thyroid isotope scan showed diffuse increase of tracer uptake.

Free T3: 12.8 pg/ml (normal 1.2-3.6), free T4: 8.9 ng/dl (normal 0.7-2.1) and TSH: <0.15 mIU/ml (normal 0.4-4.6).

A diagnosis of thyrotoxicosis was made and treatment with carbimazole (Neomercazole) 45 mg/day was started. Repeat physical examination after one month showed a significant decrease in the size of lymph nodes with mild improvement of the thyroid function tests.

The patient was followed-up monthly by thyroid function tests (TFT) and a complete blood count. Six months later the TFT were completely normal with no lymph node enlargement. Regular menstruation had been resumed and she gained 4 Kgs.

### DISCUSSION

Thyrotoxicosis is the syndrome resulting from an excess of circulating free thyroxin (T4), and free Triiodothyronine (T3). It affects about 1% of women and 0.2% of men<sup>1</sup>.

It commonly presents as weight loss, increased appetite, heat intolerance, fatigue, irritability and tremor. Depression, oligomenorrhoea, pruritus, polyurea, diarrhoea, and periodic paralysis can also be presenting symptoms. It can unusually present with diffuse lymphadenopathy<sup>2,3,4</sup>.

In this patient, the presenting symptoms and signs were non-specific. The absence of thyrotoxic features directed us to a completely different route, which delayed the diagnosis and subjected the patient to multiple invasive and unnecessary procedures.

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Various disorders have features that resemble thyrotoxicosis<sup>5</sup>, most frequently an anxiety state (fatigue, palpitations, nervous irritability and insomnia), chronic obstructive pulmonary disease (warm flushed skin, bounding pulse), pheochromocytoma (tachycardia, hypermetabolism, nervous irritability, excessive sweating, weight loss despite good appetite, hyperglycaemia and glycosuria) and myeloproliferative disorders which may present as sweating, weight loss, tachycardia especially if anaemia is present and goitre is absent<sup>6</sup>.

Generalised lymphoid hyperplasia occurs in Graves' disease and is associated with thymic hyperplasia. Significantly large lymph nodes suggest a second disease especially since there is a slightly higher incidence of leukaemia in Graves' disease patients<sup>5</sup>. Similar changes may be seen in toxic adenoma<sup>5</sup>.

Depending upon the size of the adenopathy we might look for a second disease eg lymphoma. If nothing is found, one can cautiously attribute the adenopathy to the hyperthyroidism.

#### CONCLUSION

**Generalised lymphadenopathy in a patient with weight loss and night sweating should alert the physician cautiously to find out the cause. There are common and uncommon aetiologies for such a combination of symptoms and signs. We should**

**investigate the common causes first and if a diagnosis is not reached, then the uncommon causes should be looked into. In our patient we could have avoided some unpleasant procedures had we suspected thyrotoxicosis. Physical examination and history taking remain the golden standard, which may save the patient from many invasive procedures.**

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