

# NON-HODGKIN'S LYMPHOMA OF THYROID

Pages with reference to book, From 112 To 113

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Goitres associated with autoimmune thyroid disease may undergo malignant changes. Lymphoma should be considered when such goitres enlarge rapidly. Although Non-Hodgkin lymphoma frequently affects extra nodal sites, primary involvement of thyroid gland is very unusual. However, clinically this tumour may easily be confused with anaplastic carcinoma of thyroid. Early diagnosis with biopsy and treatment with chemotherapy supplemented with or without radiotherapy results in an improved prognosis and may be potentially curative. We report 2 cases of this rare disorder in whom early diagnosis and treatment were very encouraging.

## CASE 1

A 60 year old woman presented with a 3 week history of rapid enlargement of a goitre which she had for the last nine months. It was painless and was not associated with dyspnoea but there was history of dysphagia and weight loss. On examination she was thin built but clinically euthyroid. The goitre was of about 200 grams but hard in consistency. Cardiovascular, respiratory, abdominal and neurological examination were normal. Total T4 was 63 nmol/L with TSH of more than 60U/L. Her ESR was 12 mm and both thyroglobulin and thyroid microsomal antibodies were present in titres of 1:640 and 1:6400 respectively. On chest X-ray, the goitre extended retrosternally pushing the trachea to the right and on lateral view the trachea was reduced to a mere slit. CT scans of chest and abdomen were clear. A provisional diagnosis of Hashimoto's thyroiditis was made but in view of the rapid growth and obstructive symptoms she was referred for urgent surgery. At operation, an inoperable thyroid tumour was found infiltrating the surrounding structures. A biopsy was taken. Post-operatively, she developed severe respiratory obstruction and it was quite difficult to intubate. The histology came through to be a Non-Hodgkin's lymphoma. She was commenced on chemotherapy in the form of CHOP i.e. cyclophosphamide, adriamycin, oncovin (Vincristine) and prednisolone which resulted in rapid reduction in the size of goitre and was extubated in 48 hours. After 7 months, no residual tumour was present. She continued on thyroxine 100 micrograms daily as replacement therapy.

## CASE 2

A 46 year old man presented with a 5 months history of goitre which started on the left side of the neck but then involved the whole gland progressively. The swelling was painless but he had some dysphagia and retrosternal discomfort but no dyspnoea. On examination, the goitre was diffuse, approximately 80 grams with a larger left lobe. It was firm in consistency and mobile without regional lymphadenopathy. Clinically the patient was euthyroid. T4 was 60 nmol/L and TSH was 5 U/L., ESR was 71 mm. Antibodies against thyroglobulin and microsomes were absent. The goitre seemed innocent. Suppression with thyroxine was tried but there was no response until 4 months later, when the patient developed severe dysphagia and dyspnoea. The goitre had increased in size considerably and was then fixed to superficial and deep structures. He was referred for urgent surgery. At operation extensive carcinoma of thyroid was found involving the surrounding structures. Biopsies were taken. Post-operatively, the patient developed more distress as regards dysphagia and dyspnoea. Histology revealed non-Hodgkin's lymphoma. He was started on CHOP therapy i.e., cyclophosphamide, adriamycin, oncovin and prednisolone. He responded within 36 hours. Goitre was reduced to half of its original size and he could swallow and breathe easily. He had six pulses of chemotherapy and it was consolidated by

radiotherapy. There was no residual tumour afterwards. Two years on, he remained symptom free but was on thyroxine as replacement therapy.

## DISCUSSION

Thyroid lymphoma is a rare clinical entity and constitutes 4% of thyroid malignancies and less than 2% of all extranodal lymphomas<sup>1</sup>. There is a marked female preponderance with a sex ratio of 8.4=1. The mean age is between 60-65 years. It usually presents as a rapid enlargement of a painless goitre and is usually associated with pressure symptoms. It is very common to confuse it with anaplastic carcinoma of thyroid. The goitre tends to be stony hard, nodular and is fixed to superficial and deep structures. On radio-isotope thyroid scan it is cold. Majority of patients are hypothyroid<sup>2</sup> and 80% have either thyroglobulin or microsomal antibodies or both. A recent epidemiologic study shows a 67 fold increase risk of thyroid lymphoma in patients with chronic lymphocytic thyroiditis<sup>3</sup>. Clinical diagnosis is very difficult and surgery is still performed both to excise the tumour and/or obtain a tissue diagnosis<sup>2</sup>. The safety, simplicity, cost effectiveness and patient's compliance are important advantages of needle biopsy but it involves the expertise of an experienced cytologist who can interpret the results confidently as the differentiation from Hashimoto's thyroiditis can be difficult<sup>4</sup>. There is no definite classification of thyroid lymphoma although different studies used Rappaport or Kiel classification. However non-Hodgkin's lymphoma seems to be the commonest entity. Out of non-Hodgkin variety, centroblastic cell type is commoner than immunoblastic type. One of the series<sup>5</sup> concluded that histological subtypes are of no prognostic importance and should not itself determine definitive management. The prognostic factors include tumour bulk, mobility of the goitre, presence of retrosternal extension and extracapsular infiltration. Symptoms of severe local compression are also associated with poor prognosis. The role of surgery in the management of thyroid lymphoma remains debatable. Chemotherapy, with or without consolidating radiotherapy gives a five years survival between 80% and 85%<sup>2,6</sup>. The possibility of thyroid lymphoma should be considered in any patient with rapidly enlarging goitre or in whom anaplastic carcinoma has been diagnosed. The ease of treatment of lymphoma makes open biopsy worthwhile, even in patients who are already very ill. Because of high incidence of lymphoma, patients with Hashimoto's thyroiditis should be advised to report changes in the nature of thyroid swelling straightaway.

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## REFERENCES

1. Chak, LY., Hoppe, R.T., Burke, J.S. and Kaplan, H.S. Non- Hodgkin's lymphoma presenting as thyroid enlargement. *Cancer*, 1981; 48: 2712-16.
2. Devine, R.M., Edis, A.J. and Banks, P.M. Primacy lymphoma of the thyroid; a review of the Mayo clinic experience through 1978. *World J. Surg.* 1981; 5: 33.
3. HoIm, LE., Blomgren, H. and Lowbagen, T. Cancer risks in patients with chronic lymphocytic thyroiditis. *N. Engl. J. Med.*, 1985; 312: 601.
4. Vickery, A.L.Jr. Needle biopsy pathology. *Clin. Endocrinol. Metab.*, 1981; 10:267.
5. Tupchong, L, Hughes, F. and Harmer, C.L. Primary lymphoma of the thyroid: clinical features, prognostic factors and results of treatment. *Int. J. Radiat. Oncol. Biol. Phys.*, 1985; 12: 1813.

6. Blair, T.I., Evans, R.G., Buskirk, S.), Banks, P.M. and Earle, J.D. Radiotherapeutic management of primary thyroid lymphoma. *Int. J. Radiat., Oncol. Biol. Phys.*, 1985; 11:363.