Non-Hodgkin's Lymphoma Of The Neck: An Important Lesson In Early Diagnosis

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Citation

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Abstract

Non-Hodgkin's lymphoma is a recognised cause of neck swellings. We report a case where the delay in referral to a specialist centre of a neck lymphoma proved catastrophic. The consequences of delayed diagnosis and the importance of communication between clinical specialty teams are discussed here.

INTRODUCTION

Lymphoma is the second most common primary malignancy occurring in the head and neck following squamous cell carcinoma. The majority of thyroid Non-Hodgkin's lymphomas (NHL) originate from B-cell lineage and have a greater predisposition to extra-nodal spread in contrast to Hodgkin's lymphoma.

We discuss the unfavourable management of this case with its detrimental outcome and promote awareness with emphasis on early diagnosis and management; through reviewing outcomes of clinical investigations and effective communication between clinical specialty teams.

CASE REPORT

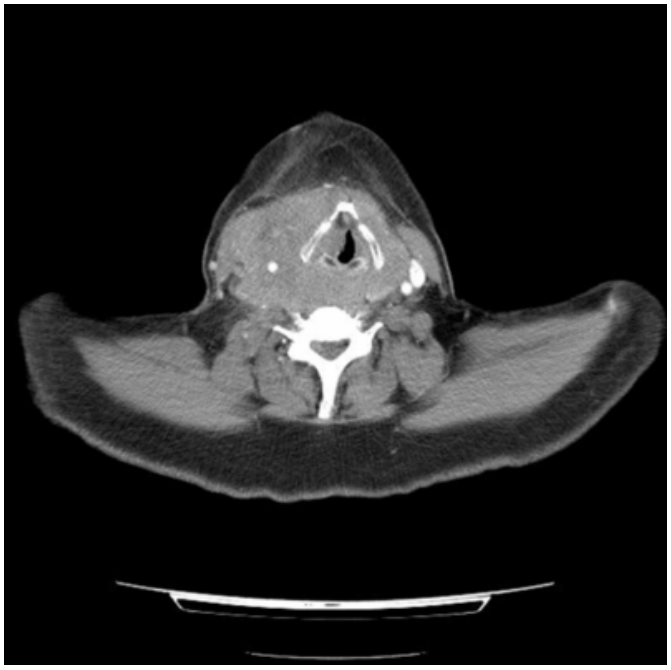
A previously fit 50 year old gentleman who was an ex-smoker, presented to the Endocrinology department with a progressively enlarging anterior neck mass with palpable bilateral cervical lymphadenopathy. Initial serological investigations confirmed hypothyroidism and a once daily 50mcg thyroxine dose commenced. Over a 4 week period the patient was routinely reviewed in the out-patient department and a computerised tomography (CT) scan of his neck and thorax was performed but was never reviewed. During the 6 th week following his initial presentation he was reviewed in the (Ear, Nose and Throat) ENT department following an urgent transfer with symptoms of change in voice, throat discomfort, dysphagia to solids but no airway obstruction.

On examination there were was a large diffuse anterior neck mass occupying both anterior neck triangles with retrosternal extension but no signs of respiratory distress. Fibre-optic laryngoscopy revealed erythema and swelling of the right supra-glottic region but the vocal cords were visible and moved symmetrically without restriction.

His CT scan from 3 weeks earlier revealed a large heterogeneous thyroid mass with evidence of lymphadenopathy in right side of neck and in the superior mediastinum and obstruction of the trachea and and oesophagus. Appearances were reported, as highly suggestive of a malignant thyroid lesion (Figure 1).

Figure 1

Figure 1: Neck CT scan demonstrating large thyroid lymphoma



An emergency open biopsy was performed under local anaesthetic and histology confirmed an aggressive CD20, CD79a, BCL6 and BCL2 positive diffuse large B cell NHL. He was subsequently transferred to a tertiary oncology centre where following his first cycle of R-CHOP (rituximab with cyclophosphamide, doxorubicin, vincristine, and prednisolone) chemotherapy he deteriorated 72 hours later with dizziness and nausea. An urgent head CT scan revealed bilateral parieto-occipital haemorrhages measuring 6 x 6.5 x 5cm but he unfortunately died shortly before any intervention.

DISCUSSION

Primary malignant lymphoma of the thyroid is relatively uncommon and has been reported by Austin et al (1998) as representing less than 5% of thyroid malignancies. NHL of the thyroid gland presents during the sixth and seventh decades of life and has been reported by Pederson et al (1996) and by Aozasa et al (1986) to demonstrate a greater female preponderance. Patients commonly present with a rapidly growing, painless neck mass with or without obstructive symptoms including dysphagia, hoarseness and dyspnoea. NHL originates predominately from B-cells in particular the large cell histological type, but rare T-cell types have been reported by Haciyanli et al (2000).

The association between NHL and Hashimoto thyroiditis has been reported between 30%-70% by Scholefield et al (1992) and Hyjek et al (1988). It has been suggested by Holm et al (1985) that the chronic inflammatory response secondary to the autoimmune disorder elicited in Hashimoto's disease will eventually progress to chronic proliferation of lymphoid tissue and subsequent malignant degeneration.

NHL has been linked with mucosa-associated lymphoid tissue (MALT) malignancies. These lymphomas remain localized for a prolonged period of time, which accounts for the high prevalence of early disease confined to the thyroid gland and local lymph node involvement at initial presentation as reported by Anscombe et al (1985) and Isaacson et al (1987).

As the field of clinical medicine expands the transfer of the responsibility for patient care is becoming more prevalent, generating an urgent need to improve communication and documentation between doctors. As Kripalani et al (2007) have shown, this applies not only between General Practitioners (GPs) and hospital based specialists; but also between specialists in both secondary and tertiary referral centres.

It had taken more than 6 weeks to establish the diagnosis for this patient. This was primarily caused by a delay in both referral to an ENT department and reviewing the outcome of a previously requested CT scan. The diagnosis of NHL would have been established earlier, if the patient had been referred by the GP directly to an ENT department. Although neck lumps commonly present in primary care settings, some GPs may find it difficult to refer to the appropriate hospital specialist. This decision is based on a combination of concurrent symptoms and signs. The patient was referred to the Endocrinology department initially because of co-existing neck swelling and serology confirming hypothyroidism at the time of presentation. In retrospect, the additional presence of the cervical lymphadenopathy should have prompted a high index of suspicion for neoplastic involvement.

This case report illustrates the importance of both training in clinical examination and also the importance of reviewing the outcomes of investigations ordered in the management of patients. The delay in referral to the ENT department undoubtedly contributed to the morbidity associated with the case, despite histological diagnosis in the form of a frozen section confirming NHL being obtained on the day the patient was transferred.

CONCLUSION

The discrepancies in communication and referral pathways between hospital based specialists are extensive and ubiquitous.

Although thyroid NHL is not prevalent, it is highly curable with chemotherapy in combination with radiotherapy and without extensive surgery. Hence, it should be recognised early and treated correctly.

It is anticipated that this case report will encourage robust referral patterns between clinicians. In addition, emphasise the importance of reviewing and reacting to the outcome of investigations promptly, to avoid adverse events in patient management.

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