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CASE REPORT

Stitch Abscess Masquerading as Recurrent Thyroid Cancer

Suppuration sur fils de suture simulant une récidive de cancer de la thyroïde

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ABSTRACT

Recurrent thyroid cancer after remnant ablation is a known entity in follow up of differentiated thyroid cancer. It is however unusual for a stitch abscess to present as a recurrent thyroid cancer. We highlight the diagnostic dilemma of a stitch abscess masquerading as a recurrent thyroid cancer in a young female adult in the setting of financial constraint. **WAJM 2012; 31(2): 139–141.**

RÉSUMÉ

La récidive après exérèse du cancer de la thyroïde est une entité bien connue lors du suivi du cancer différencié de la thyroïde. Il est toutefois inhabituel de voir une suppuration sur fil de suture simuler un cancer de la thyroïde. Nous soulignons le dilemme diagnostic d'une suppuration sur fils de suture simulant une récidive de cancer de la thyroïde chez une femme adulte jeune dans un contexte de contraintes financières. **WAJM 2012; 31(2): 139–141.**

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INTRODUCTION

Thyroid cancer is the most common endocrine malignancy and accounts for 1% of all malignancy.[1] The differentiated variety is however one of the potentially treatable conditions if diagnosed early and proper management protocol of follow up instituted. Thyroid cancer was first described by Halsted as a silent growth that can suddenly become more aggressive, metastasize, recur and transform into highly lethal or high mortality cancer if untreated.[1] The present protocol of management recommends total thyroidectomy[2–5] followed by diagnostic I^{131} or I^{123} scan 6weeks later before the replacement of T_4. The essence of the delayed replacement is to encourage an endogenous rise in TSH to enhance the specificity of the diagnostic scan. Alternatively, a recombinant TSH (rhTSH) is administered in two consecutive daily intramuscular injections of 0.9mg. Blood should be drawn for Thyroglobulin (Tg) measurement 3 days after the second injection.[6] This procedure obviates the unpleasant side effect of thyroid hormone withdrawal. The diagnostic scan finding of remnant thyroid tissue in the neck indicates remnant ablation with 80–100mCi of RAI 131. Recurrent rates are highest in the extremes of life and the risk of recurrence also depends on the extent of the initial thyroidectomy. The outcome of managing a patient may be confounded by some factors extraneous to the biology of the tumour. We therefore report a patient who though had some of the predisposing factors for recurrence; but also highlights some of the challenges of managing thyroid cancer in a resource poor practice.

Case Summary

E.A. is a 20-year old female university undergraduate student. She presented at the referring hospital with a 7-year history of neck swelling for which she had a right near total lobectomy and isthmusectomy of the thyroid gland in December, 2000. The histology of the specimen revealed papillary carcinoma. There was no family history of thyroid cancer and she is the fourth of five children. She was then placed on 100μg of *l*- thyroxine.. She vouluntered history of irregular compliance.

Seven years later, she presented in our centre for thyroid remnant ablation. On examination, she had a firm non-tender midline anterior neck nodule measuring 1.5 by 1.2 cm in addition to the thyroidectomy scar. The clinical diagnosis of hypertrophic scar to rule out recurrencewas made. However, since she did not have total thyroidectomy initially the two options left was either a completion thyroidectomy or residual tissue ablation (where the surgery is considered dangerous or too delicate or the patient declined the offer). She was euthyroid at presentation even though she was not on T4 replacement because of intact "normal thyroid tissue". She had100mCi of radioactive iodine 131 (RAI 131) as completion thyroidectomy ± remnant ablation. The post therapy scan revealed remnant thyroid tissue at the neck region only.

She was given a 2month appointment without thyroxine replacement. She presented five months later with severe hypothyroidism T3 <1 (1.1–3.2)nmol/l, T4 7.9(62–141) nmol/l TSH 1266.6(0.38–4.8) mU/l. She was .....μg of *l*-T_4. She could not have a diagnostic scan then due to financial constraint until 3 months later (8 months after the initial iodine treatment). The scan still showed intense uptake on the right anterior neck. The neck nodule had increased in size to 3 by 3cm more to the right of the midline. It moved with deglutition, was firm and non tender. She did not have a neck ultrarasound sound scan at this time to reduce cost. She continued on thyroxine replacement as she could not afford a repeat treatment with RAI-131.

She was seen again eight months later (April 2009) with the neck nodule appearing slightly bigger at 3 by 4cm. A neck ultrasound revealed no lateral thyroid tissue but a 13 by 20 by 16 mm solid midline mass in the area of the isthmus. There was no cystic area within the mass. The diagnosis was a recurrent thyroid mass in the neck arising from the Isthmus. Fine needle aspiration cytology (FNAC) was reported as acute-on-chronic inflammation of an anterior neck mass. She was then referredfor excision biopsy with a plan for a second RAI 131 therapy if the histology revealed recurrent thyroid cancer.

The results of the preoperative investigations were satisfactory. However the findings at surgery were the scar of previous surgery, a stitch abscess under the previous scar containing three stitches and pus. There was no thyroid tissue in the thyroid bed, one parathyroid gland was found on the left. She made satisfactory post operation recovery and was discharged home on five days later. Histology of the surgical specimen showed abscess and foreign body granulomatous inflammation. The wound was satisfactory on her first clinic appointment.

DISCUSSION

The peculiarity of the case presented is the mimicry of recurrent thyroid cancer by a stitch abscess that was not diagnosed clinically, by ultrasound or diagnostic whole body scans. At the initial presentation, her clinical presentation suggested a recurrence of thyroid cancer because of her young age, erratic usage of T_4 and violation of the follow-up protocol due to poverty. However, the FNAC report of chronic inflammation should have led to the suspicion of the stitch abscess. This was not considered because of the seven-year interval between the thyroidectomy and her presentation. Rather, a chronic inflammatory response to the previous RAI therapy was considered as the differential diagnosis of cancer recurrence. Recurrence rates are highest at the extremes of life before age 20 and after age 60 years.[7–9] Children commonly present with more advanced disease than adults and have more tumour recurrences after therapy, but with good prognosis for survival.[10]

This patient was young and the definitive diagnosis of thyroid cancer was not established until after the first surgery. This case therefore supports the need for a total thyroidectomy as the initial treatment. If the initial surgery was not total, a completion-thyroidectomy should be performed to improve the sensitivity and specificity of the follow-up protocol especially with Tg. However, Tg assay is not performed routinely at that time to

follow up patients in our centre because of its high cost. It costs as much 10,000 Naira (66 USD) elsewhere and is not affordable to most patients whose management are financed out-of-pocket. In conclusion, a high level of suspicion for other rare causes of a swelling in the thyroidectomy bed, like a stitch abscess, should be considered when evaluating a patient for a recurrent thyroid cancer. This may reduce the cost of management of such patients in a low resource clinical practice.

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