中文題目：甲狀腺乳突癌併有皮膚轉移腫瘤-個案報告
英文題目：Papillary thyroid carcinoma combined with skin distant metastasis
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Abstract

Papillary thyroid carcinoma has three types of tumor recurrences including postoperative nodal metastases, local recurrence, and postoperative distant metastases. Papillary thyroid carcinoma usually has outside regional lymph nodes metastasis and lung distant metastasis. Fewer than 1% of all patients with papillary carcinoma, had cutaneous metastases. We report a case of papillary thyroid carcinoma with lymph-vascular invasion and minimal extrathyroid extension, post total thyroidectomy and I-131 therapy initially. However, post-operation thyroglobulin level kept elevating. Thyroid echo found residual thyroid tissue and neck CT found residual thyroid tissue and multiple nodules in the right anterior lower neck. Radical thyroidectomy with unilateral lymph node dissection, and skin and subcutaneous tumor excision were also performed. The pathology report confirmed papillary thyroid carcinoma with lymph nodes and skin and subcutaneous metastasis.

Case presentation:

This 42 years old female patient didn't have any systemic disease, who presented with palpable anterior neck mass near right supraclavicular area for 2 months with symptoms including foreign body sensation and mild compression feeling while swallowing　in 2014.The mass did not induce pain.She denied dysphagia, odynophagia, hoarseness, dyspnea, fever, sore throat, cough, or other common cold symptoms. She also denied palpitation, easily sweating, hands tremors, and body weight loss. She never smoked, and denied alcohol and betel nuts use. About her family history, her cousin had unknown thyroid disease.

Lab data showed normal thyroid function(TSH: 4.87uIU/ml(0.25-4) , Free T4: 1.03ng/dl(0.7-1.8)) but elevated thyroglobulin level(Thyroglobulin: 54.61ng/ml(<50)). thyroid echo found right　single hypo-echoic nodular goiter(1.86cm*1.07cm). Thyroid fine needle aspiration(FNA) was done and FNA cytology report was nondiagnostic result((Bethesda System for Reporting Thyroid Cytopathology; diagnostic category I).)

We recommended rearrange thyroid FNA and recommended patient to avoid Iodine-rich foods. But the patient lost follow-up. She finally came back 2 years later due to referral from our GS(general surgeon) department. The patinet's thyroid nodule

enlarged to more than 4cm, so the surgeon performed total thyroidectomy and neck dissection. The pathology report confirmed papillary thyroid carcinoma(PTC): a 4.5cm malignant nodule at right lobe with lymph-vascular invasion and minimal extrathyroid extension (to perithyroid soft tissue or skeletal muscle). There was negative for malignancy in a small regional lymph node in section but the surgical margin was involved. AJCC 8th staging was T3bN0AmX, stageI, ATA High Risk. We then arranged post-operation neck sonography but no obvious remnant found. We also prescribed thyroxine for hormone supplement and therapy. Post-operation thyroglobulin(Tg) persistently maintained more than 10ng/ml(13.3ng/ml), and we arranged high-dose radioactive iodine(RAI). Subsequent whole body scan(WBS) revealed residually biological remnants in the right tubercle and pyramid, a faint radioiodine avid lymph nodes in the left supraclavicle basin(N1b), and less image evidence of I-131 avid distant metastasis.

After completed I131 therapy, out-patient-department follow-up Tg was still elevating from 13.3ng/ml to 84.8ng/ml within 6 months. Therefore, we re-arranged neck sonography that found thyroid tissue remnants this time. Neck CT with contrast revealed bilateral residual thyroid glands, multiple nodules in right anterior lower neck and borderline enlarged right neck level IV lymph nodes. Radical thyroidectomy with unilateral lymph node dissection was smoothly done; skin and subcutaneous tumor excision were also performed. The pathology report confirmed PTC with lymph nodes and skin metastasis. The patient then accepted further I131 therapy again.

Discussion

Papillary thyroid carcinoma has three types of tumor recurrences including postoperative nodal metastases, local recurrence, and postoperative distant metastases. Papillary thyroid carcinoma usually has outside regional lymph nodes metastasis and lung distant metastasis. Fewer than 1% of all patients with papillary carcinoma, had cutaneous metastases in thyroid cancer case, palpation of the thyroid bed and lymph node areas is routinely performed. Ultrasonography is more sensitive and may detect lymph nodes as small as 2 to 3 mm in diameter. Thyroglobulin(Tg) is a glycoprotein that is produced only by normal or neoplastic thyroid follicular cells. Serum Tg should not be detectable in patients who have had total thyroid ablation. Here, we presented a case with papillary thyroid carcinoma with skin distant metastasis that was confirmed by pathology report. Physical examination, thyroid echo, serum thyroglobulin for follow-up are needed.