



Contents lists available at ScienceDirect

Taiwanese Journal of Obstetrics & Gynecology

journal homepage: www.tjog-online.com

Research Letter

Metastatic cervical carcinoma to the thyroid gland: A rare diagnosis[☆]

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ARTICLE INFO

Article history:

Accepted 22 November 2018

Dear Editor,

In this letter, we would like to inform clinicians about a case of metastatic cervical cancer. During preoperative period the patient had no symptoms from thyroid metastasis and PET/CT scan did not show any increased activity in the thyroid gland.

A 55-year-old G7P6 woman was admitted to our outpatient clinic with postmenopausal bleeding complaint lasting for two months. In physical examination, nothing remarkable was found. Transvaginal ultrasonography showed 2 cm mass in junction of isthmus and cervix without any abnormality in adnexal structures. Endometrial sampling and endocervical curettage was performed and squamous cell carcinoma with focal keratinization was diagnosed. During preoperative evaluation her CA-125 level was 9.5 U/ml and thyroid-stimulating hormone level was 0.52 uIU/ml. Local and distant spread was evaluated with PET/CT scanning. PET/CT scan showed a metabolically active 30 × 25 mm mass with intense FDG uptake (SUV_{max}: 20.5) in the junction of uterine corpus and cervix which considered to be compatible with malignancy but cervical or endometrial origin could not be distinguished. Thyroid gland abnormalities were also seen in PET-CT scan which consisted of bilateral lobar hyperplasia with retrosternal elongation and metabolically inactive nodules, largest one measured 3 cm in both lobes. Radical hysterectomy with bilateral salpingo-oophorectomy, bilateral pelvic and para-aortic lymphadenectomy, appendectomy and an infra-colic omentectomy were performed. After surgery, the patient had a diagnosis of stage IIA poorly differentiated squamous cell cervical cancer and she also had lymphovascular space invasion and pelvic lymph node metastasis. She completed her adjuvant

chemo-radiotherapy uneventfully and her surveillance program was scheduled.

She was admitted with a painless enlargement in thyroid gland causing dyspnea five months later from her surgery. In physical examination, diffuse enlargement in gland without any pain or inflammation was noticed. Ultrasonography was performed and only multinodular goiter was reported. In thyroid function tests, only TSH value was 0.02 uIU/ml. Her fT3, fT4 and thyroid auto-antibodies were all in normal limits. Total thyroidectomy was performed to relieve her symptoms. Surprisingly, pathologic evaluation of thyroid gland showed metastasis with squamous differentiation which was also identical to her treated cervical tumor. Immunostaining were also performed using standard streptavidin-biotin-peroxidase methods for her tumor in thyroid and there were no staining with thyroglobulin, CD56, synaptophysin, chromogranin A, calcitonin. She is now taking her adjuvant chemotherapy which will be followed by neck irradiation.

Thyroid gland is not a common site for invasive cancer metastasis despite rich vascular supply. Approximately 1.4%–3% of all thyroid malignancies are caused by metastasis [1–3]. Kidney, lung, breast tumors are most common source of thyroid metastases [3]. Gynecologic malignancies are rare source of thyroid metastases, seen in only 3% of patients [4].

Lungs, liver and bones are mostly affected organs from hematogenous cervical cancer spread. There are less than ten cases in literature which are reporting thyroid metastasis from cervical cancer. Generally they can cause symptoms due to compression to trachea or vascular structures but also excess hormone synthesis can add tachycardia and heat intolerance to the clinical picture.

In our case, our patient was totally asymptomatic before cervical cancer staging surgery and she only had mild dyspnea before thyroidectomy. She was not operated with any suspicion of neck or thyroid malignancy. Immunohistochemical staining can help pathologists in the differentiation of primary thyroid malignancies from metastasis. There is no consensus in the management of thyroid malignancies due to rarity of situation but several case series showed improved survival in patients treated with total thyroidectomy rather than observation [2,3]. In preoperative period, fine needle aspiration biopsy can be considered in cervical cancer patients with a thyroid gland abnormality in imaging studies.

[☆] Authors state that material contained in the manuscript has not been previously published and is not being concurrently submitted elsewhere.

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Conflicts of interest

All authors have no conflicts of interests to declare.

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