

Follicular Thyroid Cancer Presenting as a Pelvic Mass: A Case Report

Pelvik Kitle ile Tanı Konulan Folliküler Tiroid Kanseri Olgusu

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Abstract

Distant metastasis is uncommon in differentiated thyroid cancer (DTC) and 7% to 23% of DTC patients develop distant metastasis. The remarkably good prognosis and long-term survival in DTC are significantly reduced in patients with distant metastasis as those at the pelvic site. We report the rare case of a patient with follicular thyroid cancer initially diagnosed as a pelvic mass. *Türk Jem 2011; 15: 23-5*

Key words: Thyroid cancer; follicular thyroid cancer; distant metastasis; pelvic mass.

Özet

Diferansiye tiroid kanserlerinin (DTK) uzak metastazı nadirdir ve hastaların %7–23'ünde uzak metastaz gelişir. DTK'lerindeki uzun dönem sağkalım ve oldukça iyi prognoz, pelvik bölge metastazları gibi uzak organ metastazları ile önemli oranda azalır. Pelvik kitle ile teşhis konulan nadir bir folliküler tiroid kanseri olgusu rapor edilecektir. *Türk Jem 2011; 15: 23-5*

Anahtar kelimeler: Tiroid kanseri; folliküler tiroid kanseri; uzak metastataz; pelvik kitle.

Introduction

Thyroid cancer is the most common endocrine malignancy and over 90% are well-differentiated papillary and follicular histological subtypes (1); follicular thyroid cancer (FTC) frequently has metastases on lungs and bones (2). Trapezoid muscle, muscles of the extremities, choroid of the eye, adrenal glands, kidneys and pelvic region are the rare metastatic sites reported in the literature (3-8). We here report the rare case of a patient with FTC who had a clinical presentation of a pelvic mass.

Case Report

A 79-year-old female presented to the emergency service with abdominal pain, fever and lethargy. Mesenteric artery embolism

was suspected; abdominal computed tomography (CT) was performed. CT showed a mass measuring 7 x 7.5cm close to the sacroiliac joint and destruction of the right iliac bone (Figure 1,2). Also, sclerotic metastases in the vertebrae were reported. She was admitted to the medical oncology division. The left thyroid lobe was enlarged, with millimetric calcifications and, millimetric subpleural pulmonary nodules and pleural fluid collection were identified by chest CT. The right lobe was found to be 19x16x34mm and the left lobe was identified to be 42x53x54mm by thyroid ultrasonography (USG); hypo- and hyperechoic cystic nodules were detected, the biggest one of which was in the left lobe with 18x13x14mm dimensions. Follicular lesions in the thyroid gland and metastasis of FTC were detected by fine-needle aspiration and tru-cut biopsy from the pelvic mass (Figure 3).

Laboratory analysis revealed the following: sT3:8.13 pg/mL (2.20–4.70), sT4:51.20 ng/dL (8–20), TSH:0.02 mIU/mL (0.20–3.20), thyroglobulin: 631 ng/mL (2–70), Anti-Tg Ab:32.78 IU/mL (0–60). Thyroid scintigraphy was consistent with suppressed thyroid



Figure 1. A mass 7x7.5cm in diameter, close to the sacroiliac joint and leading to destruction of the right iliac bone

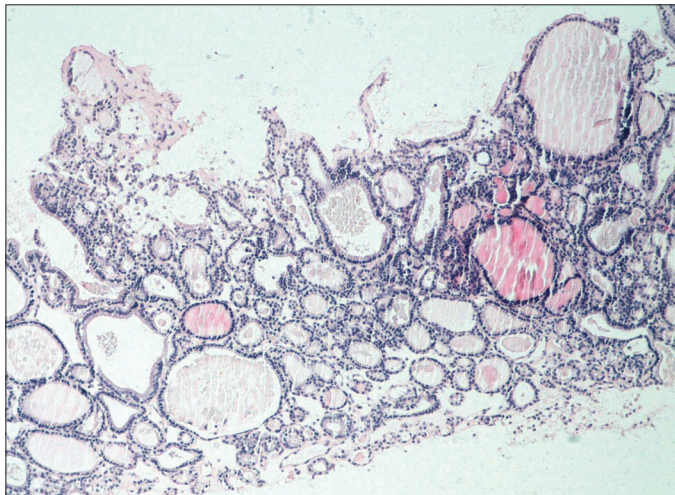


Figure 2. Tru-cut biopsy from the pelvic mass revealed metastases of FTC with Hematoxylin-Eosin staining, x100

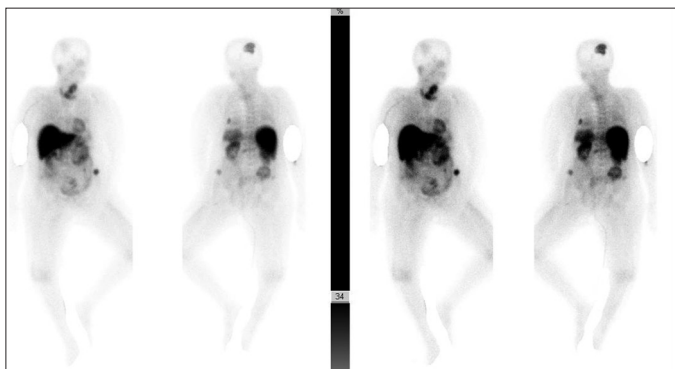


Figure 3. 99mTc-MIBI scintigraphy demonstrated increased dense activity involvement especially in the left side of the neck, pathologic focally increased activity involvement in the right iliac wing and focally relative increased activity involvement in the area compatible with the second lumbar spine

gland. Increased dense activity involvement especially on the left side of the neck, pathologically focally increased activity involvement in the right iliac wing and focally relatively increased activity involvement in the area compatible with the second lumbar spine were detected on Technetium-99m methoxyisobutyl isonitrile (99mTc-MIBI) scintigraphy (Figure 4). The diagnosis was metastasis of follicular thyroid cancer which produces hormone and 3x2 tablets/day methimazole was started. The patient was admitted to the hospital in poor general condition, dehydrated, with urinary tract infection. She was hydrated and treated with parenteral antibiotics and, nutritional support was provided. Nasogastric feeding was started together with methimazole treatment. Despite of all treatment approaches, the patient died one month after the diagnosis because of old age and poor general status additionally complicated by respiratory deficiency.

Discussion

The prognosis of DTC is good (9) and the disease is curable. The good prognosis and estimated long survival in DTC are reduced in patients with distant metastasis (2). 7% to 23% of patients have distant metastasis (10–12). 1% to 4% of DTC are diagnosed primarily by distant metastasis (13–15). The factors that mostly affect the prognosis are old age and the site of the metastasis. Survival is better in patients who are under 45 years of age - these patients are mostly asymptomatic and will only have lung and bone metastases. At the first diagnosis, only 2% to 5% of follicular thyroid cancer patients have metastases with the exception of neck or mediastinum (9). Especially, the survival is much decreased in patients with metastases at the initial diagnosis and the reported mortality rate is between 43% and 90% (15). Distant metastases are associated with poor prognosis (16). In a study (17), it has been reported that poor prognosis criteria of metastatic DTC are distant metastases excluding the lungs, old age and diameter of metastasis ≥ 2 cm. More than one bone metastasis is a contributing factor to the poor prognosis. In this case, old age at the primary diagnosis, bone metastases and distant metastasis at the pelvic area with a diameter of 7.5 cm are all significant factors that affect the survival of the patient negatively and, the patient died a short time after the diagnosis.

Bone metastases are identified in 3–5% of patients with DTC (18) and frequently show signs of pain, pathological fractures and spinal cord compression in cases of vertebral involvement. Pain which increases in time is the essential complaint of metastatic bone disease and can be treated with opioids. Metastatic bone pain is associated with the mass effect of tumor tissue or to the stimulation of intraosseal nerve cells by the cytokines that are produced by the tumor cells (19). In our case, the patient had no complaint of pain associated with bone, or the reason of no pain complaint could be the mental changes due to thyroid function deficiency, or she was so lethargic that she was unable to complain. It has been reported in the literature that brain, liver and skin metastases of DTC are rare (6). Metastases of follicular thyroid cancer to the right adrenal gland, the left renal (6) and pelvic regions (7,8) have been presented as case reports. This is a rare case with a soft tissue mass in the pelvic region, which is not a frequently reported metastatic area, and only 2 similar cases were formerly reported at the first diagnosis. While searching for the primary focus in a patient with a pelvic mass or with suspected metastasis, DTC (mainly follicular thyroid cancer) should be considered among other frequent malignancies.

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