

Co-occurrence of subacute granulomatous thyroiditis and papillary microcarcinoma

Subakut granülatöz tiroidit ve papiller mikrokarsinom birlikteliği

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ABSTRACT

Subacute thyroiditis, which is most commonly observed after a viral infection and may heal spontaneously, is an inflammatory thyroid disease. The co-occurrence of subacute thyroiditis and papillary carcinoma is quite rare. A 58-year-old male patient who applied to our hospital with the complaints of sore throat and neck swelling was performed total thyroidectomy following physical examination, ultrasound, and laboratory analysis. In histopathological examination, many granuloma structures were observed in both lobes, and a papillary microcarcinoma focus of 2 mm in diameter was seen in the left lobe. The co-occurrence of subacute thyroiditis and papillary carcinoma was deemed worthy of presentation as it is rarely observed.

Keywords: Papillary thyroid carcinoma; subacute granulomatous thyroiditis; synchronous.

ÖZ

Çoğunlukla viral bir enfeksiyon sonrası görülen ve kendiliğinden iyileşebilen subakut tiroidit enflamatuvar bir tiroid hastalığıdır. Subakut tiroiditin papiller karsinom ile birlikteliği oldukça nadirdir. Boğaz ağrısı ve boyunda şişlik yakınmaları ile başvuran 58 yaşındaki erkek hastaya fizik muayene, ultrasonografi ve laboratuvar incelemesinden sonra total tiroidektomi yapıldı. Histopatolojik incelemede her iki lobda çok sayıda granülom yapısı izlendi ve sol lobda 2 mm çapında papiller mikrokarsinom odağı görüldü. Subakut tiroidit ve papiller karsinom birlikteliği oldukça nadir görüldüğünden sunulmaya değer bulundu.

Anahtar Sözcükler: Papiller tiroid karsinomu; subakut granülatöz tiroidit; senkronize.

Subacute granulomatous thyroiditis is the nonsuppurative inflammation of thyroid, which is also named as Quervain's thyroiditis, pseudotuberculosis thyroiditis, painful subacute thyroiditis, giant cell thyroiditis, pseudogranulomatous thyroiditis or subacute thyroiditis. Patients usually come to the hospital with complaints of severe pain in the neck and enlargement of the thyroid gland following

an upper respiratory tract infection.^[1] Subacute thyroiditis is generally self-limiting.^[2] Subacute thyroiditis is the most frequent reason for painful thyroid, makes up 5% of clinical thyroid abnormalities, is usually observed in the fourth and fifth decades and is more widespread among women than men.^[3] The histopathology is that of proliferative follicular epithelial cells and follicular epithelial cells disintegration due to



giant cells exhibiting a phagocytic look around the colloid. The co-occurrence of subacute thyroiditis (SAT) and papillary carcinoma is rarely reported in the literature.^[4] In this case report, a male patient exhibiting this co-occurrence is presented.

CASE REPORT

A 58-year-old male patient consulted at our hospital with complaints of sore throat and a growth in the thyroid gland that started approximately three months following an upper respiratory tract infection. On physical examination the thyroid gland was tender and fixed. Laboratory findings revealed free triiodothyronine (fT3) 3.55 pg/mL (2.3-4.8), fT4 1.30 ng/dL (0.6-2), thyroid-stimulating hormone (TSH) 0.03 mIU/mL (0.4-5.6) and white blood cells of $10.51 \times 10^3/uL$ (4.6-10.2). On thyroid ultrasonography, the thyroid parenchyma echo was heterogeneous; and one soft-contoured solid nodular lesion that was 38x24 mm in dimension, filling almost the whole left lobe, and a few soft contoured solid nodular lesions, the largest of which is 16 mm in dimension was observed in the right lobe. Cervical lymph nodes were not seen. Fine needle aspiration biopsy result was suggestive of lymphocytic thyroiditis. The patient underwent total thyroidectomy because of the large nodule size. On macroscopic examination, the right lobe measured 6x3x1.5 cm and the left lobe 4x3x1.5 cm. The cross section of both lobes were off-white, solid with nodulations. On histopathological examination,

giant cells surrounding the colloid in the thyroid parenchyma in both lobes and many granuloma structures made up of lymphocytes and histiocytes were observed (Figure 1). A papillary microcarcinoma focus that was 2 mm in diameter was observed in the left lobe (Figure 2). Our patient had no family history of thyroid cancer. The patient was discharged without complications. Our patient has been followed up for approximately two years, with no problems detected. A written informed consent was obtained from the patient.

DISCUSSION

Subacute thyroiditis is a painful and non-infectious inflammatory disease of the thyroid, which is self-limiting. It is seen after viral infections although the etiology is not fully known.^[4] Subacute thyroiditis usually follows an upper respiratory tract infection. Our case had a history of upper respiratory tract infection approximately three months before symptom onset. Subacute thyroiditis is more frequently observed among women,^[3] but can be seen in men. Thyroid carcinoma is rarely observed with subacute thyroid. In the study of Fatourachi et al.,^[5] thyroid cancer was not encountered in any of 160 subacute thyroiditis patients. There are few reports in the literature showing this co-occurrence.^[3] Approximately 0.5% of patients with SAT suffer from papillary thyroid cancer.^[6] Thyroid ultrasound is important for the diagnosis of SAT. The thyroid is hypoactive in SAT, but this is not specific for the disease. It is

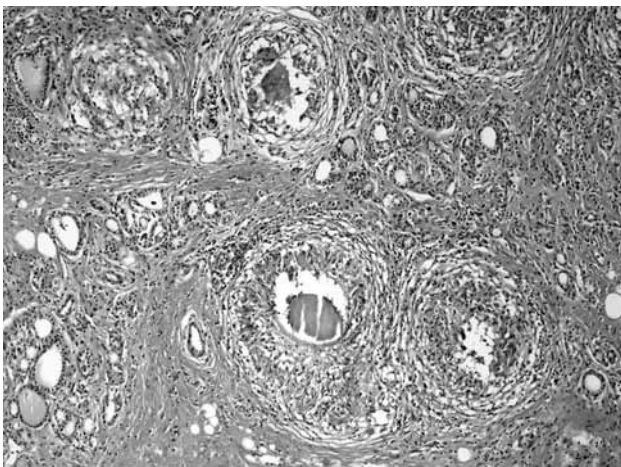


Figure 1. Granuloma structures made up of lymphocytes, histiocytes and giant cells surrounding the colloid (H-E x 20).

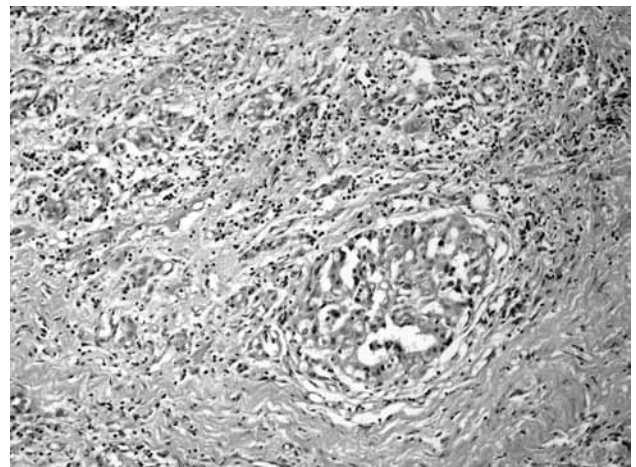


Figure 2. Papillary microcarcinoma focus in which nuclear clearing and papillary structures are observed (H-E x 20).

quite hard to detect papillary carcinoma through ultrasound in the existence of SAT.^[3] In our case, the papillary microcarcinoma focus was not realized during ultrasonography, and it was realized during histopathological examination. Furthermore, Hashimoto's thyroiditis and acute suppurative thyroiditis should be clinically considered in the diagnosis. Hashimoto's thyroiditis frequently affects the whole thyroid, while SAT usually involves a single lobe.^[7] As opposed to the literature, our case involved the whole thyroid. Microgranuloma structures are not observed in Hashimoto's thyroiditis. As for acute suppurative thyroiditis, high fever and leukocytosis are observed. Anti-thyroid drugs are not effective in the treatment of SAT. Salicylates and nonsteroidal anti-inflammatory drugs are sufficient to control the pain in mild cases. Oral glucocorticoids are preferred in more severe cases. Beta blockers can be used if there is hyperthyroidism.^[7,8] Papillary carcinoma can be rarely observed in cases with SAT. It is very hard to detect papillary carcinoma using ultrasound in these patients. More attention should be paid in order to overcome an underlying neoplasia in these cases.

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