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Olgu Sunumu ***Case Report***

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Thyrolipoma: A rare lesion of the thyroid gland

Tirolipoma: Tiroid bezinin nadir lezyonu

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Abstract

Thyrolipoma, or adenolipoma of the thyroid gland, is an uncommon neoplasm with unclear etiology. Thyrolipoma is a benign, nodular, usually encapsulated and biologically inactive neoplasm composed of tissue of the thyroid gland and adipose in different proportions. A case of a 40-year-old female presenting with swelling in the neck that was diagnosed as thyrolipoma was considered worth presentation with literature review because of its extreme rarity.

Key Words: Thyrolipoma, thyroid gland, adipose tissue

Özet

Tirolipoma ya da tiroid bezinin adenolipoması, etiyolojisi belirsiz nadir bir tümördür. Tirolipoma genellikle kapsüllü, selim nodül yapısında bir lezyon olup farklı oranlarda tiroid bezi dokusu ve adipoz doku içeren tiroid bezinin genellikle biyolojik olarak inaktif neoplazmlarındandır. Boyunda şişlik şikayeti ile başvuran 40 yaşındaki bir kadın hastaya çok nadir görülen tirolipoma tanısı konuldu ve literatür eşliğinde sunulmaya değer görüldü.

Anahtar Kelimeler: Tirolipoma, tiroid bezi, adipöz doku

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Introduction

Thyrolipomas or thyroid adenolipomas are rare, benign neoplasia formed by the combined presence of mature adipose tissue and the glandular structure of the thyroid gland (1). The patients are either asymptomatic or have slow-growing benign thyroid nodules. Its treatment is total thyroidectomy (1). Thyrolipomas are circumscribed by a smooth fibrous capsule different from lipomatosis characterized by diffuse adipocyte infiltration in the stroma. An examination of the thyroidectomy material of the patient who underwent total thyroidectomy after a preliminary diagnosis of multinodular goiter showed a benign nodule structure composed of mature adipose tissue and thyroid follicles, and the case was reported as a rare thyrolipoma.

Case Report

The case was a 40-year-old female patient. She underwent total thyroidectomy after a preliminary diagnosis of multinodular goiter. Macroscopic examination of the thyroidectomy material showed a well-circumscribed nodule with a diameter of 1 cm and a gray-yellow cut section, in addition to many colloidally-rich nodules with an average diameter of 1 cm. Histopathological examination showed a benign nodule structure composed of mature adipose tissue and thyroid follicles in the cross-sections of the yellow-gray nodule (Figure 1, Figure 2, Figure 3). Other areas were considered to be consistent with adenomatous hyperplasia and the case was reported as a rare thyrolipoma.

Discussion

Fat tissue is generally present in the parathyroid, thymus, salivary glands, pancreas and the mammary. In normal thyroid glands, adipose tissues can be seen in small amounts around the capsule and vessels, but they are rarely seen in large masses. And if they present with follicular cell and adipocyte groups in fine needle aspiration, the possibility of an adenolipoma should be considered (1).

Ge et al. (2), in their study where they report a case and make a literature review, emphasize the high possibility of thyroid nodules containing extracapsullary adipose tissue or being separate nodules in the neck, and thus the pathologist should differentiate it from the parathyroid tissue using the frozen method (2) .

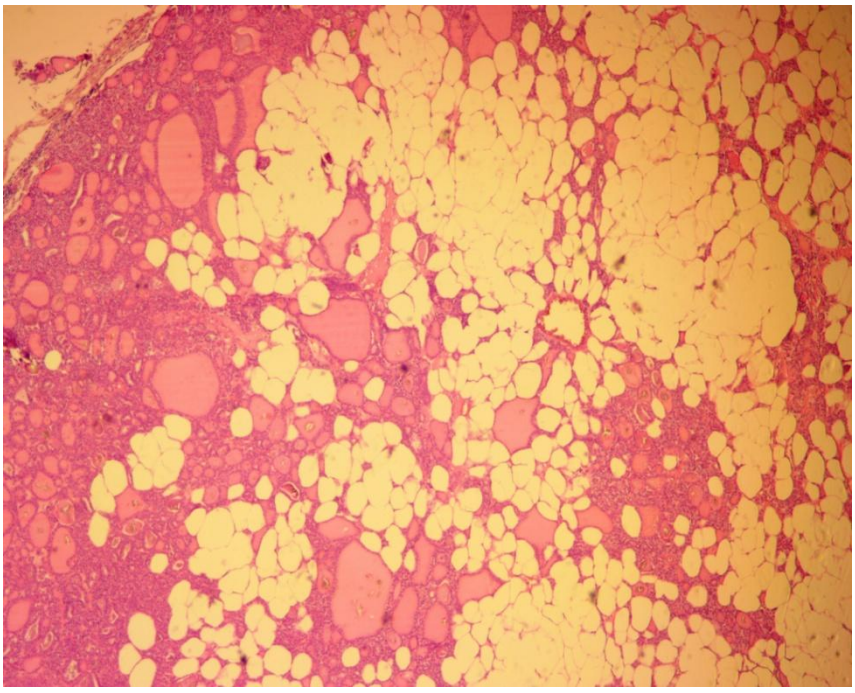

Figure 1: Showing thyroid follicles (Left) and mature adipose tissue (Right) (H and E, x40)

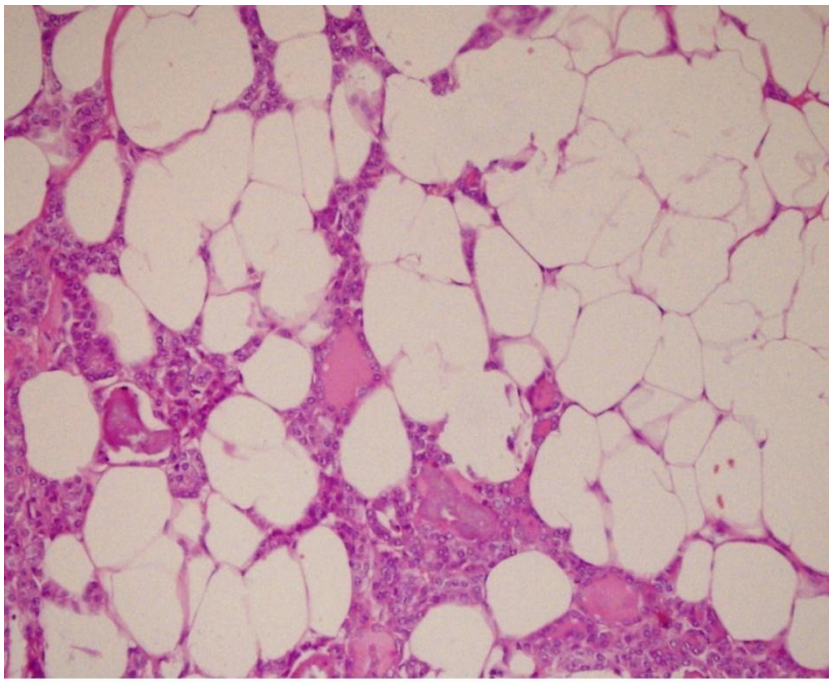

Figure 2: Dense adipocytes stained with H&E between the macro and micro-follicles partially containing colloids (H and E, x200)

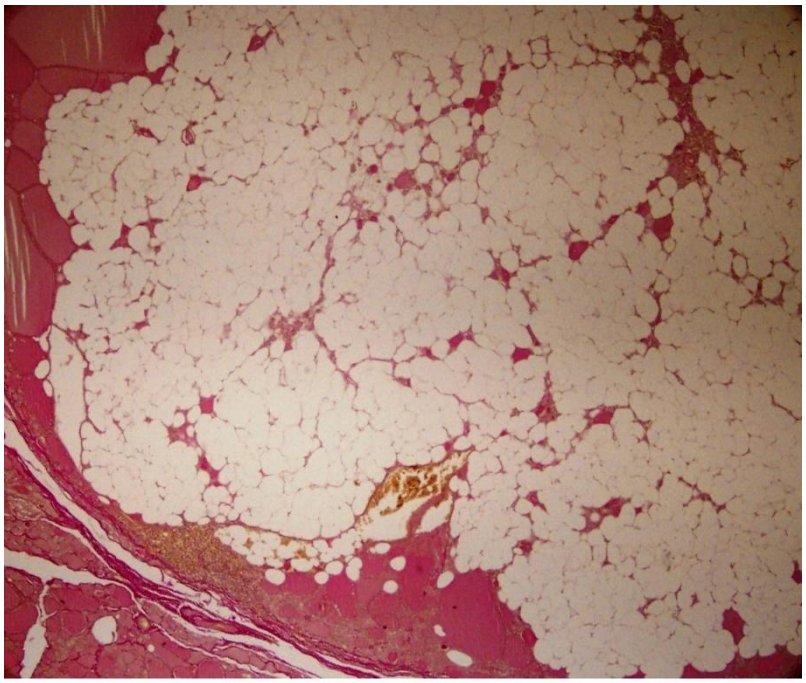

Figure 3: The fibrous capsule of the nodule is stained red with Von-Gieson (HC, x 40)

The nodule in our case was completely circumscribed with a separate capsule in the thyroid parenchyma, macroscopically containing no suspected parathyroid tissues accompanying it.

Another study emphasize that preoperative fine needle aspiration stimulates lipomatous lesions and should always be taken into consideration (3).

This gives a meaningful response in aspirations where the clinician actually enters into the nodule, otherwise cells from neighboring organs or the subcutaneous fat tissue are seen in every cytological material and thyrolipomas are always considered as the last possibility, although they should be kept in the mind at all times.

In two separate and similar studies, the radiological and macroscopic diameters of lesions are 5 cm and over in

cases described as thyroid adenolipomas (4, 5). The density of the fat tissue can be radiologically detected (5).

In our case, thyrolipoma appeared as a nodule with an average diameter of 1 cm and a lighter yellow cut section between other colloidally-rich nodules, and had no clinical or radiological preliminary diagnosis.

In a study by Schröder et al. stated that the adipose tissue was formed in response to tissue hypoxia, as result of stromal metaplasia or with the involution of senile fibroblasts (6).

Regardless of its formation mechanism, adipose tissue is a surprising and unexpected structure for the thyroid gland. Thyroid adenolipomas or thyrolipomas that are rarely seen with the benign follicle structures of mature adipocytes and that are circumscribed by fibrous capsules were considered worth reporting as they have some overlap with our case.

References

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