Open Access

Case Report

Collision tumor of the thyroid gland a case report

DOI: https://doi.org/ 10.32007/jfacmedbagdad.613,4383

Satar M. Kadam* **MD, FEBNM, JBNM**
Nadia H. Ibraheem** **FICMS**
Nabeel J. Al-Rubaei*** **CABMS, FIBMS**

J Fac Med Baghdad
2019; Vol.61, No .3,4
Received: Dec.2018
Accepted: Feb. 2019
Published: April 2020

Introduction:

collision tumor is the presence of two histopathologically distinct tumors in the same anatomical site. It is a rare pathology of the thyroid gland that makes diagnosis and treatment challenging. This is a case report of a collision tumor of the thyroid gland.

Case report:

A 55-year-old female presented post near total thyroidectomy for multi nodular goiter; her thyroid function test was within normal range.

Histopathology:

Macroscopically:

Right lobe is gray–brown in color, firm, and measuring 5.5*4*2.5 cm, with 2 well circumscribed nodules gray-brown in color the largest measuring 2.1*2 cm.

The left lobe gray brown in color measuring 3.5*2.5*0.5 cm with a well circumscribed nodule measuring 0.5*0.5 cm.

Microscopically:

The right lobe showing two nodules the largest (2 cm) encapsulated showing micro follicular arrangement, myxoid changes, areas of hemorrhage and cystic changes. The capsule showing foci of vascular invasion with CD 34 expression, the other nodule measuring 7 mm showing follicular and focal papillary configuration, optic clear overlapping nuclei, nuclear grooving, surrounded by a capsule, with cells seen outside the capsule, CK19 +ve.

The left lobe showing microscopic nodule measuring 5 mm showing papillary type nuclear features.

Picture consistent with multifocal micropapillary thyroid carcinoma with minimally invasive follicular thyroid carcinoma.

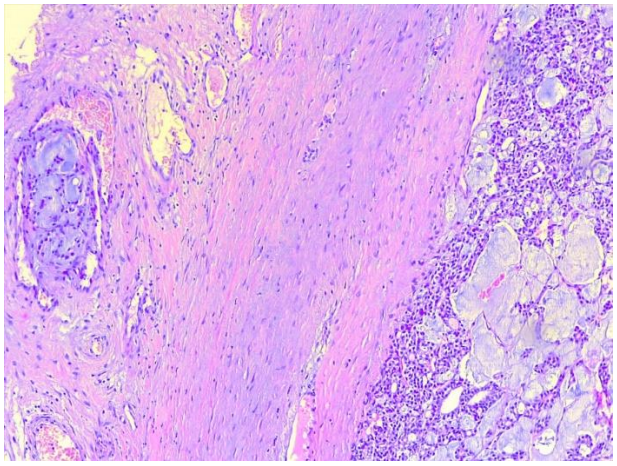

Figure 1 showing microfollicular arrangement with angioinvasion.

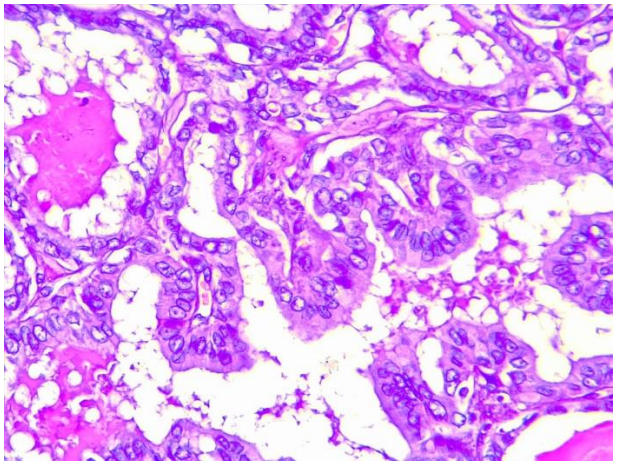

Figure 2 focal papillary configurations, optic clear, overlapping nuclei, nuclear grooving.

**Department of surgery, college of Medicine, University of Baghdad. Correspondence Email: drsttar@gmail.com*
***Department of Pathology, Medical city, Baghdad teaching Hospital.*
****Medical City, /Baghdad Teaching Hospital. Email: nabeelsagban@yahoo.com*

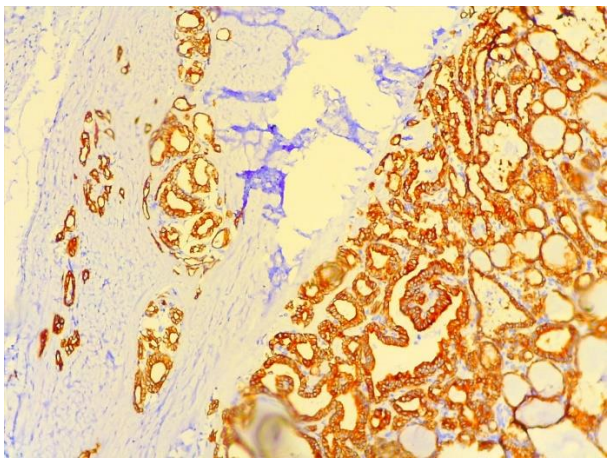

Figure 3 CD 19 +ve

Discussion:

Papillary thyroid cacner is th first most common thyroid cancer around 60-65%) (1), followed by follicular thyroid cancer , around 15% of all thyroid cancer . while papillary thyroid cancer tend to metastasized lymphatically , follicular tend to heamatoligically metastasized (2). The presence of both tumors increased the risk of both lymphtic and hematogenous metastases for the patient. Collision tumors can occur in various organs such as the ovaries, colon, lung, stomach, skin, and kidneys but are extremely rare in the thyroid (3). The most common type described is the presence of mixed histology consisting of papillary and medullary carcinomas (4). Management of collision tumor should be managed by multidisciplinary team setting and should be patient specific. Generally the most aggressive tumor should guide the treatment (5) .

References:

1. The coexistence of anaplastic and papillary carcinomas of the thyroid: a case presentation and literature review.
Fortson JK, Durden FL Jr, Patel V, Darkeh A
Am Surg. 2004 Dec; 70(12):1116-9.
2 . Follicular thyroid carcinoma invades venous rather than lymphatic vessels.
Lin X, Zhu B, Liu Y, Silverman JF
Diagn Pathol. 2010 Jan 22; 5():8.
3 . Baloch ZW, Mandel S, LiVolsi VA. Combined tall cell carcinoma and Hürthle cell carcinoma (collision tumor) of the thyroid. Arch Pathol Lab Med 2001;125:541-3.
4. Zhang Z, Min J, Yu D, Shi H, Xie D. Renal collision tumour of papillary cell carcinoma and chromophobe cell carcinoma with sarcomatoid transformation: A case report and review of the literature. Can Urol Assoc J 2014;8: E536-9.
5 . Collision tumors of the thyroid: A case report and review of the literature.
Ryan N1, Walkden G2, Lazic D3, Tierney P1.