



Collision Tumor of Thyroid: A Rare Case Report

Authors

Khethmal P¹, Arun Kumar²

¹Senior Resident, Department of Pathology, Government Medical College Thrissur, Kerala, India

²Junior Resident, Department of Pathology, Government Medical College Thrissur, Kerala, India

Mobile no: 9447713650 Email: akrs-89@yahoo.com

Corresponding Author

Khethmal P

Mobile no:7034193004, Email: dr.kethmalrajpuhith@gmail.com

Introduction

Co existence of two or more independent, histologically distinct tumors separated by non neoplastic stroma in the same organ is collision tumor. It is different from composite tumors, which are composed of different tumor in close proximity with histologic intermingling of tumor cells. collision tumors within thyroid are rare.

Case History

A 84 yr old female with swelling in front of neck since 10yrs duration presented to casualty with stridor. Examination revealed multinodular goiter. TFT was within normal limits. Emergency airway management followed by total thyroidectomy was done. Gross examination shows nodularly enlarged thyroid cut section identified three gray white growth larger one measures 6.5cmx2cm with central scar, Smaller measures 4x3cm, Smallest measures 0.8cm in GD. The final pathology report revealed Hurthle cell carcinoma with capsular and vascular invasion (fig 1) Follicular carcinoma with capsular and vascular invasion

(Fig 2) and Papillary carcinoma (Fig 3). There is no evidence of extrathyroid extension.

Grossly cut section shows three gray white growth



1. Encapsulated gray white growth with central scar and capsular invasion
2. Encapsulated gray white growth with capsular invasion
3. Gray white growth



Fig 01 Hurthle cell carcinoma with capsular and vascular invasion

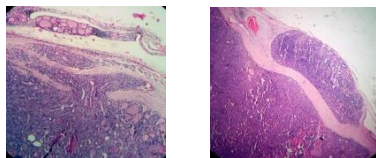


Fig 02A Follicular carcinoma with capsular invasion

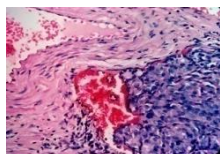


Fig 02B Follicular carcinoma with vascular invasion

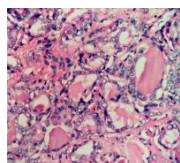


Fig 03 Papillary carcinoma

Discussion

Collision tumor has been reported in oral cavity, stomach, liver, kidney, cervix and ovary. Here we had a combination of Hurthle cell carcinoma, Follicular carcinoma, Papillary carcinoma in thyroid. Theories proposed for such occurrence are stem cell theory, Collision theory and Hostage theory. It is important to clinically recognize these tumors because of biopsy of only the benign component can have adverse consequence. These tumors should be considered more aggressive and higher risk of recurrence. Treatment should be patient specific and is directed by the more aggressive of the tumors. This emphasizes the importance of detailed histopathological examination and recognition of second neoplasm as prognosis and survival may be determined by this component.

Conclusion

Collision tumors of thyroid gland are rare. They are diagnostic as well as therapeutic challenge due to dual pathology. Specific treatment guidelines are not available due to paucity of reported literature on these tumors. Greater understanding of various combination of pathology and their impact on prognosis, treatment, and potential for recurrence will make standardized diagnostic and treatment protocol to be evolved.

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