Hyalinizing trabecular tumor of thyroid in a patient with suspicious for papillary cancer in fine needle aspiration biopsy: a case report

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INTRODUCTION

➢ Hyalinizing trabecular tumor is a very rare neoplasm of thyroid and can be misinterpreted as papillary or medullary cancer in fine needle aspiration biopsy (FNAB).

CASE REPORT

➢ Multinodular goiter was detected in a 65 years old woman using metformin and L-thyroxine for impaired blood glucose and Hashimoto thyroiditis, respectively
➢ FNAB was performed in two nodules and reported as suspicious for malignancy and benign.
➢ She underwent total thyroidectomy and a lesion with fragmented thin fibrous capsule was detected. The lesion was not including colloid and was characterized by eosinophilic, polygonal and elongated cells with wide cytoplasm and oval, elongated and irregular nucleus. There was also straight nuclear notches and pseudoinclusions. Narrow hyalinized stroma including thin vascular structure was present between trabecules. There was no capsular or vascular invasion (Figure 1). Cytokeratin 19, HBME-1 and calcitonin were negative and TTF-1 was highly positive with immunocytochemical staining. Ki 67 proliferation index was 1-2%. No staining with BRAF VE-1 antibody was observed. (Figure -1)
➢ The lesion was diagnosed as hyalinizing trabecular tumor depending on morphological and immunocytochemical findings.

CONCLUSION

➢ It is difficult to differentiate hyalinizing trabecular tumor of thyroid and papillary thyroid cancer due to similarities in morphology and origin of two tumors, and FNAB may be misinterpreted as papillary thyroid cancer. Diagnosing hyalinizing trabecular tumor of thyroid which is benign or has low malignant potential and which can be treated by lobectomy will certainly prevent patient from overtreatment.