ELASTOGRAPHY IN DIAGNOSIS OF THYROID NODULES

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Background/Purpose: The prevalence of thyroid nodules in general population ranges from 20% to 76% with estimated malignancy incidence of 5.4 – 7.7%. US examination and FNAC are the main diagnostic tools for thyroid nodules; however a considered group of thyroid nodules patients still have uncertain preoperative diagnosis. Although, elastography is not yet used in routine clinical practice for thyroid nodules assessment, it has been shown to be useful in diagnosis of breast and prostate cancers. The aim of the present study was to evaluate the accuracy of elastography in preoperative diagnosis of thyroid nodules.

Methods: The study included thirty consecutive patients presenting with thyroid nodules. All of them were subjected to US neck examination, elastography assessment of thyroid nodules scoring them from 1 to 5 according their elasticity pattern, and FNAC. Postoperative pathological results of the resected thyroid specimens were recorded.

Results: the patients of the present study were 20 females, and 10 males with mean age 38±12.66 (23–70). Elastography score 1 and 2 were found in 14 cases and all of them were benign on final pathology. Score 3 in 8 cases, 2 of them diagnosed as thyroid papillary carcinoma, while 6 of them were benign on final pathology. Score 4 and 5 in 8 cases, all of them were malignant on final pathology, with sensitivity of 80%, a specificity of 100%.

Discussion & Conclusion: Elastography is a promising diagnostic tool for thyroid cancer, especially in equivocal nodules on fine needle cytology.