

Fine Needle Aspiration: Its Role in Diagnosis of Follicular Variant of Papillary Thyroid Carcinoma

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Introduction. Papillary thyroid carcinoma (PTC) is the most common type of thyroid cancer with rapid growth and frequent nodal metastases. However, in the beginning of millennium was found the so-called follicular variant of papillary thyroid carcinoma (FVPTC). It has clinical features that are between PTC and follicular thyroid carcinoma. It is believed, that FVPTC has better prognosis than classical PTC (CPTC).

Aim, Materials and Methods. The aim of the study is to investigate whether fine needle aspiration (FNA) biopsy can provide an exact diagnosis of FVPTC. In the retrospective study were analyzed FNA findings (Bethesda categories), histological diagnosis, size and demographic data in 166 operated PTC patients. After proved PTC diagnosis patients were stratified into 2 groups – FVPTC and CPTC. Fisher's exact test was performed by online software (GraphPad, San Diego, USA) in descriptive statistics. Differences were considered statistically significant if $p < 0.05$.

Results. From the total of 166 PTC patients, FVPTC was found in 39 (23.5%) and CPTC in 127 (76.5%) patients. FNA biopsy was performed in 34 (87.2%) patients with FVPTC and in 98 (77.2%) patients with CPTC. Frequency of Bethesda category I in FVPTC and CPTC was 2 (5.9%) and 3 (3.1%), accordingly ($p = 0.60$). Bethesda category II: 3 (8.8%) in FVPTC and 8 (8.2%) in CPTC ($p = 1.00$). Bethesda category III: 5 (14.7%) in FVPTC and 9 (9.2%) in CPTC ($p = 0.35$). Bethesda categories IV and V: 24 (70.6%) in FVPTC and 78 (79.6%) in CPTC ($p = 0.34$). Large (≥ 1 cm) cancers were in the majority in IV and V categories in both groups: 17 cases in FVPTC and 55 in CPTC ($p = 0.80$). FVPTC group was presented mainly by women (31; 79.5%) in the age of 50 years. Similar situation was in CPTC group: women were in the majority (116; 91.3%) in the age of 54 years.

Conclusions. FVPTC cannot be diagnosed with FNA biopsy, because the frequency of cases in all Bethesda categories in both FVPTC and CPTC groups did not have any statistically significant differences. Majority did not show predilection to FVPTC or CPTC group. Demographic data did not differ in both groups.