

42. LIMITATIONS OF FINE-NEEDLE ASPIRATION BIOPSY (FNAB) IN THYROID NODULES DIAGNOSIS.

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Introduction. Fine-needle aspiration biopsy is an important diagnostic tool in thyroid nodule(s) management. According to the results of FNAB, thyroid nodules are classified by the Bethesda system in 5 categories, from benign to malignant cytologic appearance. In clinical practice, besides FNAB informativeness and utility, there are some limitations depending, in the first row, on the structure of thyroid nodules.

Aim of study. To determine limitations of fine-needle aspiration biopsy in thyroid nodules diagnosis.

Methods and materials. This study was performed on 62 patients with thyroid nodules after a complex clinical and paraclinical assessment, including fine-needle aspiration biopsy, who underwent thyroidectomies. For FNAB adequacy were executed 2-3 needle entries under ultrasound guidance. In solid nodules (23 patients) were compared the passes from central and periphery areas, in mixed nodules (39 patients) – from solid and fluid areas. Cytologic results were correlated with definitive histology.

Results. The adequacy ratio in solid thyroid nodules varied from 81.3-85.7% and the false-negative rate for cancer was 22.2-28.0%. The adequacy ratio in mixed thyroid nodules for solid areas was 82%, for fluid areas – 48 %; and respectively the false-negative rate for cancer was 18% and 41%. The highest false-negative rates were determined in Bethesda categories IV (follicular neoplasm or suspicious for a follicular neoplasm) and V (suspicious for malignancy).

Conclusion. FNAB must provide valuable cytologic results in the diagnosis of thyroid nodule(s) which can be improved by obtaining an adequate material aspirated from solid areas under ultrasound guidance. In cases with difficulties in distinguishing benign lesions from malignant ones, it has to be completed with frozen section or diagnostic thyroidectomies.