

Svetislav Tatić, Marija Havelka-Đuković, Duško Dunderović

OPPORTUNITIES CYTOLOGY IN THE DIFFERENTIAL DIAGNOSIS OF THYROID NODULE

Fine-needle aspiration biopsy (FNAB) plays an important role in the evaluation of thyroid nodules and the selection of patients for surgical treatment. It is complementary with clinical, ultrasonographical, radionuclid and radiographic investigations in the assesment of true nature of thyroid nodule.

Cytological findings can be classified as non-representative, suspicious, benign or malignant or into 8 diagnostic categories: benign colloid nodules, cystis lesions, different types of thyroiditis, cellular microfollicular lesions, Hurthle-cell lesions, primary malignant tumors, other lesions and the non-diagnostic category.

FNAB is successful in the diagnosis of benign cystic thyroid lesions, Hashimoto thyroiditis, anaplastic and papillary thyroid carcinoma, while it is less precise in the diagnosis of medullary carcinoma, lymphoma and secondary thyroid tumors.

Follicular, as well as, Hurthle-cell thyroid carcinoma cannot be cytologically differentiated from follicular and Hurthle-cell adenoma of the thyroid gland.

Immunocytochemistry may facilitate the diagnosis of thyroid tumors with follicular origin, applying galectin-3, cytokeratin 19 and HBME-1, whereas medullary thyroid carcinoma is typically proved with calcitonin immunostaining.

Key words: thyroid nodule, cytology, immunocytochemistry