

IMMUNOHISTOCHEMICAL APPROACH TO DIFFERENTIAL DIAGNOSIS OF NON-SMALL CELL LUNG CARCINOMA IN BRONCHOSCOPIC BIOPSY SPECIMENS

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Non-small cell lung carcinoma (NSCLC) includes squamous cell carcinoma, adenocarcinoma and large cell carcinoma. Subtyping of NSCLC is essential for therapy. Classification of NSCLC into more specific histological subtypes is carried out by morphologic examination or immunohistochemistry.

The aim of this study was immunohistochemical analysis of NSCLC (squamous cell carcinoma and adenocarcinoma) in bronchoscopic biopsies.

Formalin-fixed, paraffin-embedded bronchoscopic mucosal samples from 40 patients with NSCLC (20 patients with squamous cell carcinoma and 20 patients with adenocarcinoma) were retrieved from pulmonary pathology archives at Center for Pathology and Pathological Anatomy, Clinical Center Niš. Serial histological sections of 4 µm thickness were stained with hematoxylin and eosin, and immunohistochemical method DAKO LSAB for TTF-1, p63, and CK5/6 antibodies.

Positive immunoreactivity for p63 was found in 95% of squamous cell carcinomas (19/20), while for CK5/6 in 90% of squamous cell carcinomas (18/20), and in 5% of adenocarcinomas (1/20). In 80% of adenocarcinomas (16/20), a positive TTF-1 immunophenotype was found, while all squamous cell carcinomas were negative for this marker (0/20).

Immunohistochemical analysis (panel p63, CK5/6 and TTF-1) is a useful ancillary tool for distinguishing squamous cell lung carcinoma from adenocarcinoma in bronchoscopic biopsy specimens. *Acta Medica Medianae* 2016;55(2):31-34.

Key words: immunohistochemistry, non small-cell lung carcinoma, squamous cell lung carcinoma, adenocarcinoma