# Morphology and Immunohistochemistry of Primary and Secondary Adrenal Gland Neoplasms †

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**Abstract:** The objectives of our studies were: 1) to describe the morphology and immunohistochemistry aspects of primary and secondary adrenal gland neoplasms; 2) To identify possible correlations between various histopathology aspects (macro and microscopic) and immunohistochemistry expression of proliferation and invasive biomarkers; 3) To identify (for malign tumors) through a unique or multifactor analysis, the prognostic role of morphologic and immunohistochemistry markers in predicting the survival rate or the risk of metastasis. This study included 45 patients admitted and surgically treated in the Center for Urologic Surgery and Renal Transplant and diagnosed in the Pathology Department, between January 1995 and December 2005, 25 with carcinoma of the cortical adrenal gland and 20 with secondary adrenal gland neoplasm. The patients were chosen randomized, the number of cases being proportional with the number of cases diagnosed in the Pathology Department in the period mentioned above. Each case was examined and described from macroscopically, microscopically (classical H&E staining), and immunohistochemical points of view. The immunohistochemistry markers followed on these cases were: Antibody Ki-67, Proteins: Bcl-2, p21, and p27, MDM-2, Receptors: CD-44, and EGFR, Sinaptophisine. The immunohistochemistry biomarkers (expressing the proliferation activity, grade of invasion, and cellular cohesively) and the classical pathologic characteristics (weight, architecture, tumoral necrosis, capsular invasion, Weiss index) are given defined in the prognostic of primary and secondary adrenal gland neoplasms.

**Keywords:** adrenal gland neoplasms; immunohistochemistry markers; prognostic.

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## Conflicts of Interest

The authors declare no conflict of interest.