A Simple Immunohistochemical Panel Could Predict and Correlate to Clinicopathologic and Molecular Subgroups of Urinary Bladder Urothelial Carcinoma.


Abstract:

BACKGROUND: Although gene expression profiling provided a comprehensive molecular characterization of different subtypes of bladder urothelial carcinoma (UC), which are distinct in their biological features and prognosis, such a system is not yet applicable for routine clinical practice. This study aimed to examine the expression of these molecular classes of UC using simple panel of immunohistochemical markers. MATERIALS AND METHODS: Tissue sections from 192 specimens of UC were stained with FGFR3, CK5, CCNB1, HER-2, and P53. The molecular classes identified were correlated with clinicopathologic characteristics and patient survival. RESULTS: The most frequent class in our cohort was urobasal B (UroB) (44.1%), followed by squamous cell carcinoma-like (SCCL) (22%), genomically unstable (GU) (20.3%), and urobasal A (UroA) (13.6%). Patients with SCCL were significantly younger (P

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