VARIANTI MIKROPAPILLAR I KARCINOMËS ME QELIZA KALIMTARE I VESHIKËS URINARE: STUDIM MORFOLOGJIK DHE IMUNOHISTOKIMIK

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Summary

MICROPAPILLARY VARIANT OF TRANSITIONAL CELL CARCINOMA OF BLADDER: AN MORPHOLOGICAL AND IMMUNOHISTOCHEMICAL STUDY

Purpose: Micropapillary variant of transitional cell carcinoma of bladder (MPTCCB), is a rare morphological type, expressed with apparent high metastatic potential, aggressive behavior, and poor prognosis. This variant of TCCB is characterised by the presence of micropapillary component that mimicks papillary serous carcinoma of the ovary. Up to date, mechanisms able to explain the peculiar morphology and the aggressive behaviour of such tumors, has not yet been identified. In this study we presented 12 cases of MPTCCB. A significant progressive loss of CD44s, whereas overexpression of cytokeratin 20, and stromal expression of collagen IV, was identified in the micropapillary variant of TCCB.

The aim of this study was to investigated the expression of CD44 and CK20 in micro-papillary variant of TCCB. Moreover, since the key pathological feature of micropapillary is the artefactual lacunae around micropapillae, we have investigated the presence and distribution of the components of basal membrane, as CD31, and collagen IV.

Materials and methods: 543 cases with high grade and high stage of TCCB, diagnosed between 1995-2001, in the Institute of Pathology of Siena, were reviewed and 12 cases containing a micropapillary component were selected. These cases were tested by immunohistochemistry for the expressions of CD44s and CK20, and for the components of basal membrane as endotelial component CD31, and collagen IV.

Results: The incidence of micropapillary variant of TCCB is 2,2%. All patients were stage T3a disease. Tumours were locally invasive into perivesical fat in 11/12 cases; and one case was metastatic to the liver. Immunoreactivity to CD44s was absent in 10/12 cases ($p<0.001$). In contrast, 1/12 cases of poor differentiated urothelial carcinoma displayed weak reactivity (+) and 1/12 cases displayed diffuse but moderately reactivity (++) ($p=0,05$). The over expression of CK20 was present in all cases. The antibody aginst collagen IV were expressed diffusely in the tuomr's stroma in all cases, but CD31 was negative.

Conclusions: The presence of a micropapillary component in TCCB is associated with high-grade and high-stage and poor prognosis. MPTCCB have a tendency to vascular invasion and metastasis. We hipothesize that a loss of CD44s and over expression of CK20, and collagen IV, may play a role in the aggressive behaviour and local invasion and metastasis of micropapillary variant of TCCB, and then the lacunae around neoplastic micropapillae are artefact.

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