MIR-21 CAN BE USED AS INDEPENDENT PROGNOSTIC FACTOR FOR SURVIVAL AND METASTASIS IN URINARY BLADDER CANCER
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Introduction & Objectives: Our goal was to correlate the expression of 12 micro-RNAs with the corresponding expression of FGF2, OPN and VEGFA. Gene expression was correlated with the overall and cancer-specific survival of patients suffering from urinary bladder cancer (BC), as well as with recurrence and metastasis.

Materials & Methods: Gene expression was acquired by qPCR, from 77 BC specimens. Correlation of the gene expression with survival, recurrence and metastasis was employed by SPSS.

Results: High expression of miR-21 correlated with worse overall survival (p=0.0099). Univariate analysis showed that miR-21 and miR-210 can be used as independent prognostic factors for overall survival (p=0.015 and p=0.049, respectively). Moreover, univariate analysis revealed that miR-21 can be used as independent prognostic factor for metastasis (p=0.049). Multivariate analysis revealed that miR-21, miR-210 and miR-378_1 can be used as independent prognostic factors for recurrence (p=0.030 and p=0.031, respectively); and miR-21 can be used as independent prognostic factors for metastasis (p=0.049). FGF2 was positively correlated with the majority of the miRs both in BC and normal tissue (p<0.001). OPN was positively correlated with miR-145_1 (p=0.015) in BC, and with miR-296-5p (p=0.017) in normal tissue. VEGFA was positively correlated with miR-21 in BC (p=0.043), and with miR-205_1 (p=0.045), FGF2 (p=0.004) and OPN (p<0.001) in normal tissue.

Conclusions: miR-21 can be used as independent prognostic factor both for overall patient survival and metastasis of BC. miR-210 is an independent prognostic factor for overall survival.