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OVERVIEW

PREMALIGNANT AND EARLY MALIGNANT LESIONS OF THE BLADDER

The first session of the conference defined the spectrum of putative premalignant and early malignant lesions of the bladder. Two distinct non-invasive lesions were discussed which have different clinical and biologic potential. The first, carcinoma *in situ*, was discussed by Farrow, who noted that this lesion has the morphologic features of carcinoma, but lacks architectural alterations (is flat). DNA analysis has shown that this lesion exhibits a higher level of aneuploidy than muscle-invasive transitional cell carcinoma, underscoring its malignant potential. The second, non-invasive papillary tumors, was discussed by Melamed, who noted that this lesion can appear as a rare solitary benign papilloma, common low grade "hyperplastic papilloma," or cytologically malignant papillary carcinoma. Papillary tumors and carcinoma *in situ* may co-exist, and recurrences of either lesion may be seen in other parts of the urinary tract, including the renal pelvis, ureters, and urethra.

Bostwick presented a literature review of the natural history of these two lesions and early invasive carcinoma (invasion into the lamina propria) in patients predominantly treated with surgery. Predictive factors for recurrence and progression included depth of invasion, large tumor size, high grade, multifocality, vascular and lymphatic invasion, coexistent carcinoma *in situ*, loss of ABO blood group antigenicity, and aneuploidy.

All presenters remarked that new markers or combinations of markers are needed in addition to light microscopy to address the issue of how to separate those patients who will progress from those who will not within the expected lifetime of the patient. Such information may allow stratification of patients into appropriate treatment groups and provide greater precision in determining outcomes such as tumor recurrence, tumor progression, and cancer-free survival.

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