

## REFRACTORY OVERACTIVE BLADDER WITHOUT HEMATURIA: A PRESENTING SYMPTOM OF BLADDER CANCER

### Hypothesis / aims of study

Overactive bladder (OAB) is widely considered to be a syndrome and, in the absence of hematuria, is usually treated empirically. Occasionally, however, OAB may be the symptom of bladder cancer, even in the absence of hematuria. The aim of this study is to determine the incidence of bladder cancer in patients without hematuria who underwent cystoscopy because of refractory overactive bladder.

### Study design, materials and methods

A data base was searched from the years 1998 - 2008 for patients without hematuria who underwent cystoscopy as part of the evaluation of refractory OAB. Refractory OAB was defined as failure to achieve significant symptom improvement after at least 3 months of empiric therapy after referral. Hematuria was defined by microscopic analysis as > 2 rbc's per high power field. The incidence of bladder cancer was compared between men and women using the "Z" test taking into account an expected 2.5:1 male:female expected ratio.

### Results

1420 patients underwent cystoscopy (700 men & 720 women) of whom 8 were found to have bladder cancer (0.6%). Their ages ranged from 52 - 92 years with a median of 71. Duration of bladder symptoms ranged from 3 months - ten years (mean = 3.3 yrs; median = 3 yrs). The incidence of bladder cancer was greater in women 7/720 than men (1/700)(p < .001). In all cases, the initial biopsy demonstrated low grade, Ta transitional carcinoma. In all but one patient, the cystoscopic appearance was that of a typical papillary transitional cell tumor. In one, it was a subtle raised mound. All patients underwent Q 3 month cystoscopy and yearly CAT scans. Followup ranged from 6 months to 10 years with a mean and median of 5.2 & 5 years respectively. Four patients (50%) had one or more recurrences and two progressed - one to CIS and one to high grade T3 disease. The latter patient developed an upper tract tumor and died of metastatic disease 9 months after nephroureterectomy. The former was diagnosed with CIS just prior to the submission of this abstract.

### Interpretation of results

Overactive bladder symptoms without hematuria may be a presenting symptom of bladder cancer. This should alert physicians to the need for cystoscopy in patients with persistent OAB. The fact that bladder cancer was 10 times more common in women than men (despite the fact that it is 2 - 3 times more common in men than women in the general population) needs further investigation.

### Concluding message

Persistent OAB symptoms even without hematuria should constitute an indication for cystoscopy in order to exclude underlying bladder cancer.

<b>Specify source of funding or grant</b>	<b>Institute for Bladder and Prostate Disease</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require ethics committee approval because</b>	<b>This is a retrospective chart study wherein no individual patient identifiers were recorded and no alteration in treatment pathways were undertaken owing to the study itself.</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>No</b>