

BLADDER CANCER IS NOT ASSOCIATED WITH IRRITATIVE LOWER URINARY TRACT SYMPTOMS

Hypothesis / aims of study

The investigation of patients with irritative lower urinary tract symptoms (LUTS) for the presence of bladder malignancy is associated with a low diagnostic yield¹. Irritative LUTS when combined with haematuria seems not to increase the likelihood of malignancy being diagnosed^{2,3}. The aim of the study was to test the hypothesis that the presence of irritative LUTS is associated with a diagnosis of bladder malignancy in patients with and without haematuria.

Study design, materials and methods

A cohort of patients who were undergoing flexible cystoscopy completed a validated questionnaire that measures urinary urgency on a scale of 0 to 10 in addition to a record of their urinary frequency, nocturia and episodes of incontinence. The results of the cystoscopy and histology of any biopsy and resection specimens were recorded. An *a priori* power calculation determined that a total of 105 patients would need to be recruited in order to detect a clinically significant difference in urgency scores between patients with and without a diagnosis of bladder malignancy, with an α error of 0.05 and a β error of 0.2. Differences in data sets were analysed with an unpaired t-test

Results

A total of 187 patients were recruited to the study. 31 of these patients were diagnosed with a bladder malignancy. 59 had cystoscopy for frank haematuria, 31 for microscopic haematuria, 67 for surveillance and 52 for investigation of LUTS. There were no significant difference in frequency, nocturia (Fig1) and incontinence episodes between these groups of patients. However patients undergoing a cystoscopy for LUTS had significantly higher urgency scores (mean \pm SEM, 3.92 ± 0.33) than patients with frank (2.90 ± 0.35) and microscopic haematuria (2.68 ± 0.48) (Fig 2). Patients who had cystoscopy for bladder cancer surveillance had the lowest urgency scores (2.06 ± 0.29), significantly less than those with frank haematuria or LUTS.

There was no differences in any urinary symptoms between patients with and without a diagnosis of bladder malignancy including urgency scores; (2.30 ± 0.39 , n=31) and (2.58 ± 0.20 , n= 156) respectively.

Interpretation of results

- 1) There is no evidence, of an association between irritative lower urinary tracts symptoms and the diagnosis of bladder malignancy.
- 2) Differences between patient groups could not be demonstrated by frequency urgency and nocturia but by rather by the urinary urgency score.
- 3) Patients who have a cystoscopy for haematuria have significantly higher urgency scores than those having cystoscopies for surveillance.

Concluding message

Flexible cystoscopy is not necessary to exclude bladder malignancy in patients with irritative LUTS unless their are signs such as haematuria or positive urine cytology.

Fig 1

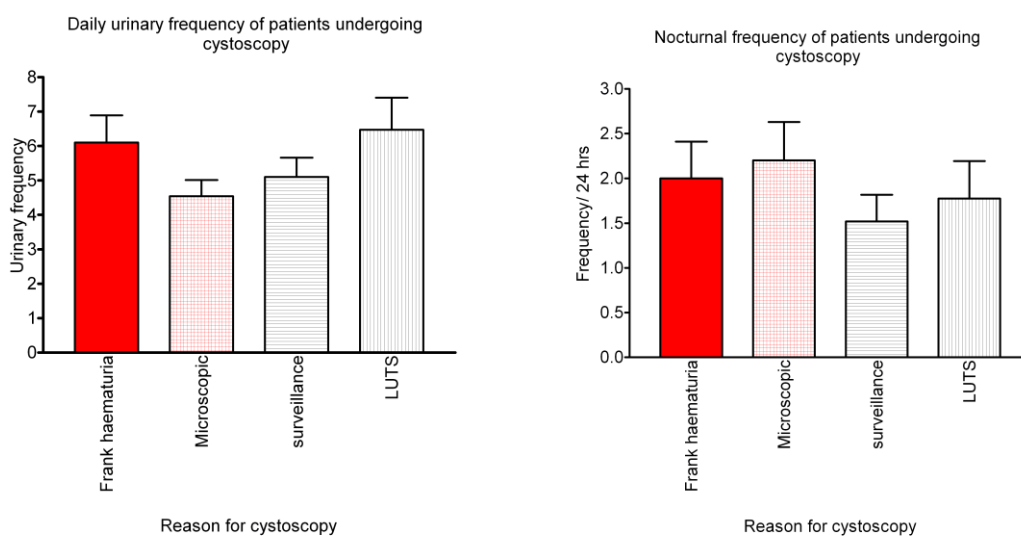


Fig 2

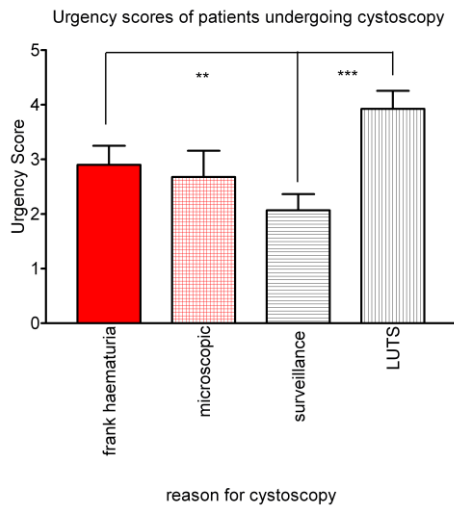
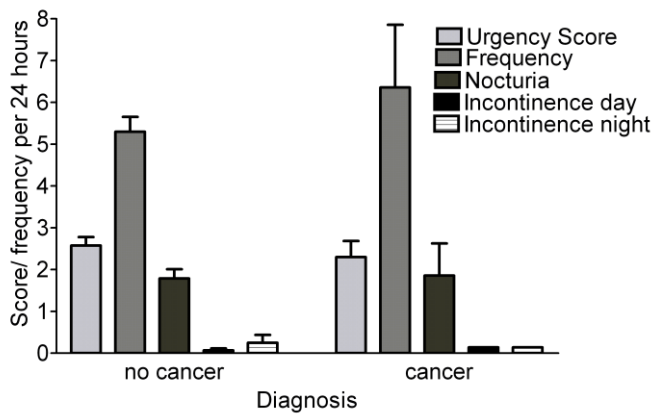


Fig 3

Comparison of symptoms between patients with and without a diagnosis of bladder malignancy



References

1. Microscopic hematuria as a predictive factor for detecting bladder cancer at cystoscopy in women with irritative voiding symptoms. Jennifer M Wu et al., American Journal of Obstetrics and Gynecology (2006) 194, 1423–6
2. A prospective analysis of 1,930 patients with hematuria to evaluate current diagnostic practice. Khadra MH, Pickard RS, Charlton M, Powell PH, Neal DE., J Urol Vol. 163, 524–527, February 2000
3. Patients with new onset haematuria: assessing the discriminant value of clinical information in relation to urological malignancies. N Summerton, S Mann, A Rigby, et al., British Journal of General Practice, 2002, 52, 284-289

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Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Whittington and Moorfields Research Ethics Committee
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes