

EVALUATION OF NARROW-BAND IMAGING AS A COMPLEMENTARY METHOD FOR THE DETECTION OF BLADDER CANCER

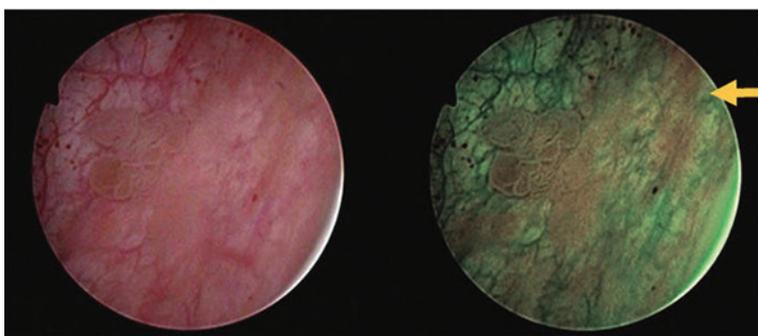
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PURPOSE

We evaluated the use of narrow-band imaging (NBI) cystoscopy for the detection of bladder cancer and analyzed its diagnostic efficacy in cases of carcinoma in situ (CIS) and in cases with known urine cytology results.

The aim of this study was to examine the relationship between morphology and malignancy in the sites that are identified by NBI and to investigate the efficacy of this technique for the detection of malignancies in patients with suspected bladder cancer, using a prospective controlled study design.



Redness area around the primary tumor on NBI (right) was diagnosed as urothelial carcinoma, pTa, G2.

METHODS

A prospective controlled study of NBI was conducted in 104 consecutive patients with definite or suspected bladder cancer. Transurethral targeted biopsies were performed after white light imaging (WLI) and NBI cystoscopy, and the histologic outcomes were compared.

The narrow-band imaging (NBI) technique, in which modified optical filters are used in the light source of a video endoscope system, narrows the bandwidth of the spectral transmittance.

RESULTS

A total of 313 biopsies were taken, including 161 from sites identified as potentially abnormal by NBI and/or WLI cystoscopy, and 152 from apparently normal sites. The percentage of malignancies in the sites identified only by NBI was 55.7% (39=70 places). In 26.9% of patients (28=104), bladder tumors were detected only by NBI.

EQUIPMENT USED

- VISERA Pro
- CV-240 Video Processor
- CV-180 EVIS Exera II Video System
- OTV-S7ProH-HD-L08E HD Urology Camera Head

CONCLUSIONS

NBI is a simple and effective method for identifying bladder tumors including CIS without the need for dyes because of its high sensitivity, high NPV (negative predictive value), and low NLR (negative likelihood ratio).

NBI is not intended to replace histopathological sampling as a means to diagnosis.

DISCLOSURE STATEMENT

No competing financial interests exist.

Note: This summary is for informational purposes only. Publication abstract and access to full article can be found at: <http://www.ncbi.nlm.nih.gov/pubmed/20707727>

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