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NARROW BAND IMAGING® FOR DETECTING RESIDUAL/RECURRENT CANCEROUS TISSUE DURING SECOND TRANSURETHRAL RESECTION OF NEWLY-DIAGNOSED NON-MUSCLE-INVASIVE HIGH-GRADE BLADDER CANCER

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OBJECTIVE

The objective of this study was to determine if Narrow Band Imaging (NBI®) can be used to detect high-grade cancerous lesions missed with white light at the time of a second transurethral resection (TUR) of high-grade non-muscle invasive bladder cancer (NMIBC).

METHODS

Consecutive patients with newly-diagnosed high-grade NMIBC were enrolled in a prospective observational study. Patients with incomplete resection or absence of muscle tissue in the specimen were excluded.

About one month after the first TUR, NBI cold-cup biopsies were taken from areas suspicious for urothelial cancer at the end of an extensive white-light second TUR protocol including: (i) resection of the scar of the primary tumour; (ii) resection of any overt or suspected urothelial lesions; and (iii) six random cold-cup biopsies of healthy mucosa.

RESULTS

In 2008, 47 consecutive patients were recruited after giving written consent (median age 62 years, range 49–83, 39 men and 8 women).

- Nine patients (19%) had macroscopic or microscopic high-grade NMI urothelial cancer
- One was reassessed as having muscle-invasive disease at the white-light second TUR plus the six random biopsies
- NBI biopsies were taken in 40 of the 47 patients and detected six more patients with high-grade cancerous tissue (13%)
- 16 of the 47 patients (34%) were found to have residual/recurrent cancer using our extensive protocol of second TUR followed by NBI biopsies

EQUIPMENT USED

- The Olympus Exera II System

CONCLUSIONS

The study concluded that adding NBI biopsies at the end of an extensive second TUR protocol in patients with newly diagnosed high-grade NMIBC can lead to the identification of patients with otherwise missed high-grade residual/recurrent urothelial carcinoma.

CONFLICTS OF INTEREST

No conflicts declared.

Note: This summary is for informational purposes only. Publication abstract and access to full article can be found at:
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