

NARROW BAND IMAGING® FLEXIBLE CYSTOSCOPY IN THE DETECTION OF PRIMARY NON-MUSCLE INVASIVE BLADDER CANCER: A “SECOND LOOK” MATTERS?

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OBJECTIVE

Investigates whether narrow band imaging (NBI®) is superior to white light imaging (WLI) in detecting primary non-muscle invasive bladder cancer (NMIBC), or if the increased detection rate is due to a “second look” or secondary inspection of the bladder.



NBI (Right) identified a brownish CIS lesion against pale white mucosa which was missed by WLI (Left)

METHODS

Between February 2009 and May 2010, NBI and WLI flexible cystoscopy were performed on 78 patients with suspected primary NMIBC. According to randomization protocol, the bladder was mapped using WLI then NBI or vice versa within the same observation time. Suspicious lesions, with controlled normal-appearing mucosa, were biopsied and examined by a pathologist blinded to the imaging sequence. The tumors detected on patient and tumor level, sensitivity, specificity, and accuracy were compared for both NBI and WLI.

RESULTS

- 88.5% of patients [69/78] were diagnosed with bladder cancer, including 211 total tumors identified
- NBI identified significantly more additional tumors than WLI
 - 17.1% [36/211] in 13 patients were detected by NBI only
 - 1.9% [4/211] in 3 patients were detected by WLI only
- The sensitivity of NBI compared to WLI for detecting carcinoma in situ (CIS) was 87.8% vs 68.3%
- The accuracy of NBI compared to WLI was 82.9% vs 75%

EQUIPMENT USED

- Olympus Evis Exera II
- 16 Fr Flexible Cystoscope
- FB-19CR-1

CONCLUSIONS

The “second look” did not compromise the superiority of NBI over standard WLI flexible cystoscopy for detecting primary NMIBC including CIS lesions.

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:

<http://www.ncbi.nlm.nih.gov/pubmed/21792663>

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