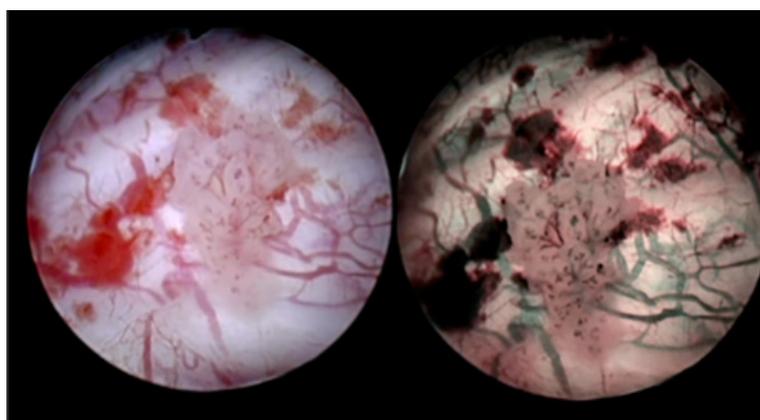


DIAGNOSIS OF NARROW-BAND IMAGING (NBI®) IN NON-MUSCLE-INVASIVE BLADDER CANCER: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVE

The objective was to evaluate the diagnostic accuracy of cystoscopy assisted by Narrow-Band Imaging compared with white-light imaging for non-muscle invasive bladder cancer. This is the first systematic review and meta-analysis of studies with a patient comparison of NBI and White Light.



White Light

NBI

METHODS

An electronic database search of PubMed, Embase, the Cochrane Library, Ovid and Web of Science was carried out for all articles comparing NBI with white-light imaging cystoscopy in the detection of non-muscle-invasive bladder cancer. A full meta-analysis review was performed following the guidelines of the Cochrane Collaboration (a not-for-profit organization with collaborators from over 120 countries working together to produce credible, accessible health information that is free from commercial sponsorship and other conflicts of interest).

RESULTS

- Seven studies with prospectively collected data including a total of 1040 patients were identified, and 611 patients with 1476 tumors were detected by biopsy
- Additional 17% of patients with NMIBC were visualized with NBI
- Additional 24% of tumors per patient were visualized by NBI
- On the tumor level, an additional 28% of Carcinoma *in Situ* (CIS) was identified with NBI
- False positive rate did not differ significantly between the two groups

META-ANALYSIS OUTCOMES OF INTEREST

- Number of patients with tumors identified by NBI
- Number of patients with tumors identified by White Light
- Number of papillary tumors per patient identified by NBI
- Number of papillary tumors per patient identified by White Light
- Number of CIS per patient identified by NBI
- Number of CIS per patient identified by White Light
- False Positive Detection Rate of NBI (Number of benign lesions identified by NBI)

EQUIPMENT USED

- Olympus HD Video System
- Olympus HD Camera Head
- Flexible Video Cystoscope

CONCLUSIONS

This meta-analysis concluded that cystoscopy assisted by NBI detects (visualizes) more patients and tumors of non-muscle-invasive bladder cancer than white-light imaging, and it might be an additional or alternative diagnostic technique for non-muscle-invasive bladder cancer.

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/23113702>

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