

# Evaluation of narrow band imaging for diagnosis of unilateral nasal lesions

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## Abstract

**Objectives:** To investigate the effect of NBI examination on the differentiating between benign and malignant neoplasms involving nasal cavity. **Design, Setting, Participants:** A retrospective case series from January 2018 to December 2019 were performed at a single center. A total of 188 consecutive patients who were first diagnosed with lesions in unilateral nasal cavity underwent complete examination with white light endoscopy (WLE) and NBI endoscopy, respectively. Biopsy was harvested from the target lesion and sent to the pathologist for definite diagnosis. Participants with a history of congenital malformation, trauma and surgery in nasal cavity were excluded from the study. **Main outcome measures:** Endoscopic diagnosis was assessed using sensitivity, specificity, accuracy and positive and negative predictive values (PPV and NPV, respectively). **Results:** In identifying benign and malignant lesions of nasal cavity, NBI had a significant higher sensitivity (92.7% vs 70.7%,  $P = 0.020$ ) and NPV (98% vs 92.3%,  $P = 0.032$ ) than WLE, but there were no significant differences between NBI and WLE in specificity (98.6% vs 97.3%,  $P = 0.684$ ), accuracy (97.3% vs 91.5%,  $P = 0.416$ ) and PPV (95% vs 87.9%,  $P = 0.400$ ). **Conclusion:** The emerging technique of NBI can improve the diagnostic accuracy of distinguishing benign and malignant lesions in nasal cavity, and remains a promising and helpful adjunct to the traditional endoscopy techniques.

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