

Feasibility of EUS with ME-NBI for Glottic Cancer and Pre-cancerous Lesions: A Pilot Study

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Background

The objectives of the present study were to evaluate the feasibility of endoscopic ultrasonography (EUS) with magnifying endoscopy with narrow-band imaging (ME-NBI) for diagnostic assessment in depth of invasion for glottic cancer and differentiation from its pre-cancerous lesions.

Methods

During microlaryngoscopy, the larynx is exposed using surgical laryngoscopes with suspension, then, EUS and ME-NBI are used to determine the depth of invasion in glottic mass and investigate abnormalities of intraepithelial papillary capillary loop (IPCL) before surgery.

Results

A total of 5 lesions were evaluated by EUS with ME-NBI and 2 lesion with EUS alone. EUS of glottis produced horizontal slice images with high resolution in determine extent

of tumorous lesion including anterior commissure, paraglottic space, epithelial or subepithelial involvement of vocal cord. In superficial lesion, it was difficult to discriminate between dysplasia and malignant lesion because of their same hypo-echoic features. In such epithelial lesion, ME-NBI provide better discrimination with IPCL type.

Conclusion

EUS with ME-NBI seems to help to predict the extent of tumor invasion and differentiate superficial neoplastic lesion before laryngeal surgery. This non-invasive method could represent an additional diagnostic tool to assist in finding the best therapeutic solution for glottic mass patients.

Keywords

Glottis, Larynx, Ultrasound, Endoscopy, Intrapapillary capillary loop classification, Narrow-band imaging

