USE OF NBI FOR THE EVALUATION OF PHARYNGO-LARYNGEAL SIGNS IN GASTRO-ESOPHAGEAL REFLUX DISEASE: PRELIMINARY RESULTS

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Objectives

About 75% of newborns have gastroesophageal reflux with higher incidence at the age of 4-5 months; the persistence and severity of the reflux symptoms lead to gastro-esophageal reflux disease (GERD). In the last decade the classic white light endoscopy has been complemented by endoscopy with NBI (Narrow Band Imaging), a system based on narrow band filters, with a light consisting of only two specific wavelengths absorbed by hemoglobin. The NBI allows to study the superficial capillary and vascular network of the mucous membrane and it is widely used for oncological diagnosis. But, as is well known, neoangiogenesis and hypervascularization are a characteristic process of other physiological and non-physiological phenomena, such as acute and chronic inflammation. Our study's purpose is to use this procedure to improve the endoscopic finding of pharyngo-laryngeal lesions in patients affected by gastro-esophageal reflux disease.

Conclusions

This work highlights that the NBI is an easier and better method to identify reflux lesions and Reflux Findings Score (RFS) parameters, compared with white light endoscopy, for the diagnosis of GERD and its endoscopic follow-up.

Methods and Patients

We analyzed the results of airway endoscopy of 27 patients, performed by white light and NBI, to compare both the results. We considered only patients with clinical and endoscopic findings suggesting pharyngo-laryngeal reflux. For every patients we evaluated reflux finding score and other reflux signs (hypopharyngeal cobblestone, tracheal hyperemia).

- 15/27 patients were less then 2 years old, with history and endoscopic signs suggestive of reflux
- 12/27 patients underwent ph-metry impedance and/or EGDS (5 cases positive for MRGE)
- Mean age 2 years (2 months – 10 years)

Results

Average Reflux Finding Score was 11 with white light (range 8-17) VS NBI (range 9-18). In 78% of cases NBI Reflux Finding Score was higher than with white light. NBI highlighted other signs not included in RFS, in particular hypopharyngeal cobblestoning, evident in 21/27 (78%) patients with NBI and only in 12/27 (44%) after evaluation by white light, and signs of tracheal hyperemia, visible in 16/27 (59%) cases with NBI VS 8/27 (30%) with white light.

References


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