INTRODUCTION: Chromoendoscopy is an endoscopic technique which uses a contrast stain to paint the aerodigestive tract mucosal lining followed by an optical assessment to highlighting any epithelial abnormalities. Detailed and high-definition magnified views achieved with the aid of rigid endoscopes can often allow for identification of the tissue type or pathology based upon the pattern uncovered. According to the literature we reviewed, we may have been the first ones to use indigo carmine in the field of otorhinolaryngology. Tiny lesions that usually go overlooked with conventional microlaryngoscopy become visible upon the instillation of indigo carmine and further decreasing the chances of an early lesion postoperative recurrence. Chromoendoscopy, in recurrent respiratory papillomatosis (RRP), helps identify unsuspected intraoperative lesions by clearly enhancing the view of their boundaries and surface type. It is also suitable to assess the presence of residual lesions, if any, after their surgical removal.

OBJECTIVES: To demonstrate the usefulness of chromoendoscopy in RRP in laryngotracheal surgery.

MATERIALS AND METHODS: We used indigo carmine associated with endoscopically laryngeal surgery. Before staining, the mucosa may need to be treated with a mucolytic agent to get rid of excess mucus to boost staining. Rigid suspension laryngoscopes of different proximal and distal diameters were used with chromoendoscopy. Patients underwent chromoendoscopy associated with endoscopic laryngeal surgery under general anesthesia in the O.R.

RESULTS: In this second phase of our research work, this diagnostic technique was applied to eighteen patients with recurrent laryngeal papillomatosis and two patients with suspected carcinoma of the larynx. We were able to optimize the intraoperative diagnosis and reduce the likelihood of the relapse risk in all patients.

CONCLUSION: Chromoendoscopy associated with endoscopic laryngeal surgery is an excellent low-cost intraoperative diagnostic method for the treatment of invasive diseases of the larynx such as laryngeal papillomatosis.

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