INTRODUCTION

The Narrow Band Imaging (NBI) is an illumination method for medical endoscopes that can visualize the micro-vascular structure of the organ surface. “The blue filter is designed to correspond to the peak absorption spectrum of hemoglobin to emphasize the image of capillary vessels on surface mucosa. Superficial lesions are identified by changes in the color tone and irregularity of surface mucosa during endoscopic examination.”

METHODS

Eleven patients of suspected early laryngeal cancer were entered in this study. Under general anesthesia, a direct laryngoscopy was performed and the observation was carried out using NBI system (CIG-575Pm, CLV-540Pm, and ENF v160CQ, OTV-575Pm).

RESULTS

Profiles of eleven patients and assessments of NBI findings were summarized in Table 1. In Office use were limited for the white coating or much secretion could catch clear view under direct laryngoscopy after removing coating matter (Fig.1, Fig.2). Furthermore under direct laryngoscopy, a flexible fiberscope could have good view of subglottic area (Fig.3). And a detailed observation of the ventricle was done using a retractor together (Fig.2, Fig.3). The existence of the invasion to the anterior commissure could be expected by approaching the CCD tip closer to it (Fig.2, Fig.3). In cases of dysplasia, the pattern of the mucosa were clearly different from that of carcinomas (Fig.4). In the case of CIS, the mucosa showed severe dysplasia, and the invasion to the anterior commissure was suspected (Fig.4).

DISCUSSION & CONCLUSIONS

Observation of eleven patients of suspected early laryngeal cancer demonstrated the following advantages: obtained the high quality of removing secretion, and achieved detailed observation of lower of the vocal fold, the anterior commissure, and the ventricle. These helped us to judge the region of biopsy. We are applying these merits as the judgment material of following therapy: irradiation or resection with laser. NBI system under direct laryngoscopy may be useful supplementary device during evaluating the stage of laryngeal cancer.

REFERENCE

