However, the observation of deep subsites of the oropharynx such as the lingual tonsillar sulcus, tongue base, and vallecula is considered to be poor, as indicated by the low mean score even during TOPPOM. Since these parts are well observed using conventional transnasal endoscopy, the transnasal endoscopy and the TOPPOM method should be used together in routine medical practice.

According to the concept of field cancerization, head-and-neck squamous cell carcinoma and esophageal squamous cell carcinoma frequently exist synchronously or metachronously (10), and a strong connection between excessive drinking and smoking and multicentric carcinogenesis has been demonstrated (11). Such cases require comprehensive examination of the head-and-neck region including the oropharynx and esophagus.

Diagnosis of superficial head-and-neck carcinoma, including of the oropharynx, can be achieved using digestive endoscopes (7, 12). In otorhinolaryngology, however, macroscopic observation is routinely conducted using a head mirror and headlight (13, 14). Furthermore, the endoscopes used in otorhinolaryngology are small, meaning that only charge-coupled devices (CCDs) with small diameters can be attached, resulting in inferior images compared to those obtained with large-diameter digestive endoscopes attached to high-resolution CCDs; moreover, image enhancement was not introduced until recently. Collectively, these factors hindered the detection of superficial carcinoma. In recent years, the potential image quality of otorhinolaryngology endoscopes has improved with the advent of narrow band imaging, in which vascular information is emphasized and expressed. Therefore, it has become possible to diagnose minute lesions that are difficult to recognize by white light observation by visualizing characteristic vascular abnormalities in tumor tissue (15), permitting the detection of superficial carcinomas during screening of high-risk patients such as those with esophageal carcinomas for head-and-neck carcinoma (16). Early detection means that minimally invasive treatment including transoral resection is possible, which helps to maintain organ function and quality of life (17). We consider that the use of the TOPPOM method can further increase the rate of early detection of oropharyngeal carcinoma by enabling comprehensive examination of the oropharynx.

New techniques have been developed for examining the hypopharynx, such as the modified Killian method (18), and clear observation of this region as far as the esophageal orifice is now possible. We think that detailed examination of the head-and-neck region using the modified Killian method in conjunction with transnasal endoscopy should be