Use of proton pump inhibitors may cause squamous epithelial masking of intramucosal carcinoma in Barrett’s esophagus

A 70-year-old man underwent gastrointestinal endoscopy as a follow-up examination of gastroesophageal reflux disease. Endoscopy showed an erythematous irregular mucosa with white plaques, covering a quarter of the circumference in the right side on the squamo-columnar junction (Figure 1). Histopathologically, the biopsy specimen of the lesion revealed an adenocarcinoma. Endoscopic ultrasonography showed that the lesion was confined to the mucosal layer. We performed an endoscopic mucosectomy, and the lesion was completely resected in bloc without complication.

Five weeks after starting the proton pump inhibitor, endoscopy showed marked improvement of the inflammation (Figure 2). Most of the lesion was covered with squamous epithelium, and the demarcation was unclear. The endoscopic image using acetic acid instillation revealed more clearly that the tumor was covered with squamous epithelium (Figure 3).

Figure 1: Endoscopy showed an erythematous irregular mucosa in the right side on the squamo-columnar junction (arrows).

Figure 2: Five weeks after starting administration of a proton pump inhibitor, endoscopy showed that the lesion was mildly erythematous, and the inflammation had improved. Most of the lesion was covered with squamous epithelium, and the demarcation was unclear (arrows).

Figure 3: The endoscopic image using acetic acid instillation revealed more clearly that the tumor was covered with squamous epithelium (arrows).

Figure 4: The resected specimen showed that the lesion was in the iodine-staining mucosa (arrows).

Figure 5: High-magnification microscopic images show well-differentiated adenocarcinoma beneath the squamous epithelium (H&E, ×100).

The resected specimen showed that the lesion was in the iodine-staining mucosa (Figures 1 and 4). Histopathologically, the lesion was in the iodine-staining mucosa (Figure 4). Histopathologically, the lesion was in the iodine-staining mucosa (Figure 5).

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was diagnosed as a well-differentiated adenocarcinoma limited to the mucosa, and most of the tumor was covered with squamous epithelium (Figure 5).

Intestinal metaplasia, dysplasia, or carcinoma in Barrett’s esophagus can be replaced by squamous epithelium after endoscopic treatment associated with acid suppression therapy [1–5]. However, it has not been reported previously that acid suppression alone could lead to squamous reepithelialization over a carcinoma in Barrett’s esophagus. Thus the use of proton pump inhibitors should be monitored carefully because they may cause masking of a small carcinoma in Barrett’s esophagus.

References


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