Development of subsquamous cancer after hybrid endoscopic therapy for intramucosal Barrett’s cancer

A 60-year-old man presented for endoscopic management of a long-segment Barrett’s esophagus with a visible lesion (Fig. 1). Endoscopic mucosal resection (EMR) of the lesion demonstrated intramucosal carcinoma (IMC) without submucosal invasion on histological examination. Endoscopic ultrasound (EUS) revealed no malignant adenopathy. Three subsequent sessions were performed with focal EMR of all visible lesions and radiofrequency ablation (RFA) of the remnant Barrett’s esophagus segment. On a follow-up endoscopy 2 years after the initial intervention, neosquamous epithelium with no apparent Barrett’s esophagus was seen and a rigorous biopsy protocol did not reveal any occult cancer. However, EUS demonstrated a 10-mm abnormal-looking gastrohepatic lymph node, diagnosed as metastatic adenocarcinoma by fine needle aspiration (Fig. 2). Subsequent computed tomography (CT) scan and colonoscopy did not demonstrate a primary site. A repeat esophagogastroduodenoscopy/EUS performed 6 months later demonstrated squamous mucosa with focal discoloration in the mid esophagus. Biopsies revealed neoplasia buried under squamous epithelium (Fig. 3). This case demonstrates a subsquamous Barrett’s adenocarcinoma after hybrid endoscopic therapy, leading to metastatic disease. The goals of endoscopic therapy of Barrett’s-associated neoplasia are to completely eradicate the known neoplasia and also treat the remainder of the at-risk epithelium. A hybrid approach, where EMR is used to eradicate and stage all visible lesions, and RFA is used to treat the remnant Barrett’s esophagus, is an appropriate management strategy [1, 2].

Subsquamous Barrett’s esophagus has been noted both pre and post ablation in the literature [3, 4]. Although the reported incidence of subsquamous Barrett’s esophagus is relatively low, the true incidence and risk of progression to neoplasia might be underestimated. The size and depth of biopsy specimens may be insufficient to determine whether there are buried glands [5]. Furthermore, there is inherent sampling error from biopsy protocols. More studies on biopsy protocols and long-term outcomes after endotherapy are required to elucidate the risk of subsquamous Barrett’s esophagus and neoplasia.

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