

Two Cancers in One Barrett's Segment: First Report of Concurrent Squamous Cell Carcinoma and Adenocarcinoma

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Keywords

Esophageal cancer · Barrett esophagus · Endoscopy

Duas neoplasias num segmento de Barrett: primeiro relato de carcinoma espinocelular e adenocarcinoma concomitantes

Palavras Chave

Esófago de Barrett · Endoscopia · Neoplasia de esófago

A 70-year-old male patient underwent his first upper endoscopy for anemia work-up. Beyond a 3-cm hiatal hernia, an endoscopic diagnosis of Barrett's esophagus (Prague classification C3M4) was entertained, as illustrated by a tongue at 3 o'clock on blue laser imaging (Fig. 1a). However, at the gastroesophageal junction an estimated 20-mm nodular, superficially ulcerated lesion emerged (Fig. 1b), likewise visualized on linked color imaging (LCI) after intra-hernial retroflexion (Fig. 1c). Giv-

en this presumed malignant complication, full-scale assessment of the Barrett's esophagus was warranted, including acetic acid spraying. In combination with LCI, another 8-mm utterly flat lesion emerged at 6 o'clock with an irregular vessel and surface pattern, highly suggestive of early cancer as a second lesion (Fig. 1d). Pathology of endoscopic biopsies confirmed specialized intestinal metaplasia and, more intriguingly, indicated a well-differentiated adenocarcinoma (AC) for the flat lesion (Fig. 2a) and a poorly differentiated squamous cell carcinoma (SCC) for the nodular lesion (Fig. 2b). Cross-sectional and EUS staging indicated T1/2N+ stage. Notwithstanding, due to advanced chronic obstructive pulmonary disease (GOLD IIIB with long-term oxygen therapy), the patient underwent upfront esophagectomy without significant complications after pulmonary prehabilitation. Final surgical pathology indicated pT1a, pN0(0/27), G1 for the AC and pT1b, pN1(2/27), G3 for the SCC (furthermore: L0, V0, Pn0, R0 each).

Barrett's esophagus is a well-acknowledged risk factor for esophageal AC formation; however, singular cases of

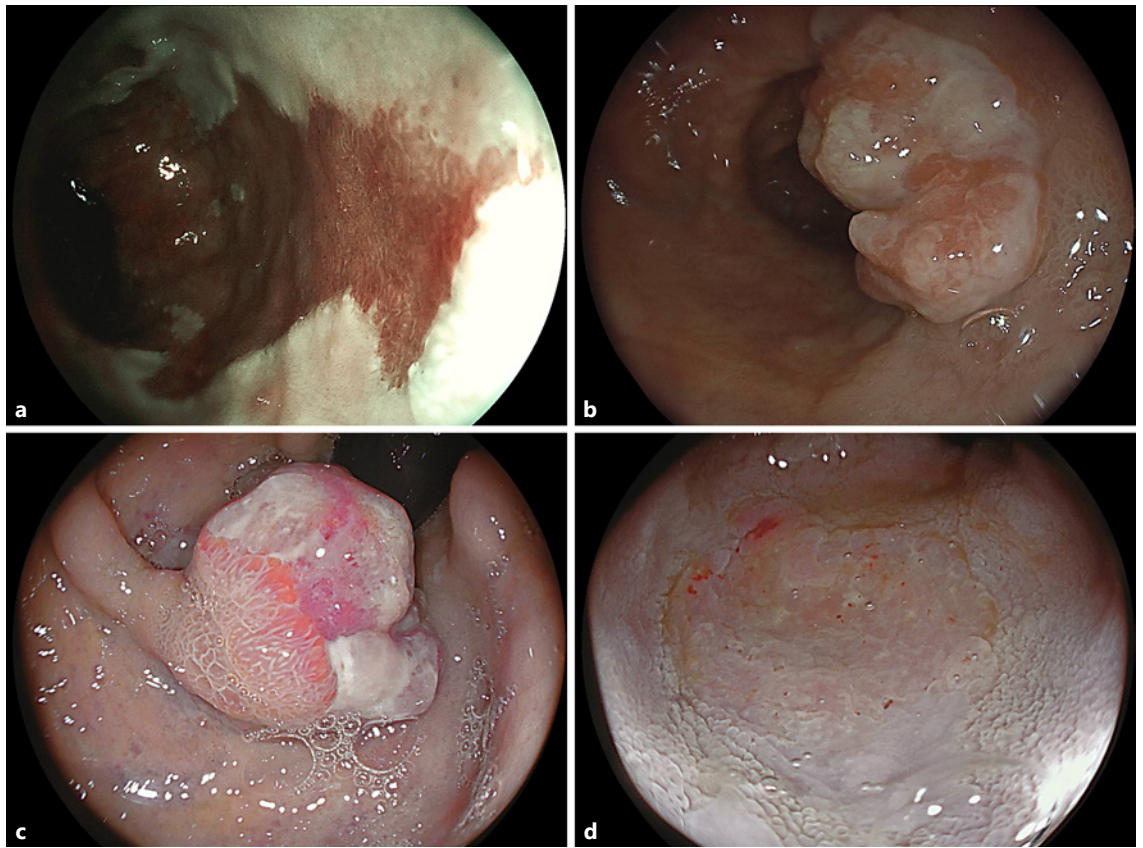


Fig. 1. **a** Blue laser imaging of a Prague C3M4 Barrett's esophagus with a tongue highlighted at 3 o'clock. **b** An estimated 20-mm nodular ulcerated lesion emerged at the gastroesophageal junction (**c**) as replicated on retroflexed LCI visualization. **d** LCI after acetic acid spraying in the distal esophagus highlighted another 8-mm flat lesion with an irregular vessel and surface pattern consistent with early cancer.

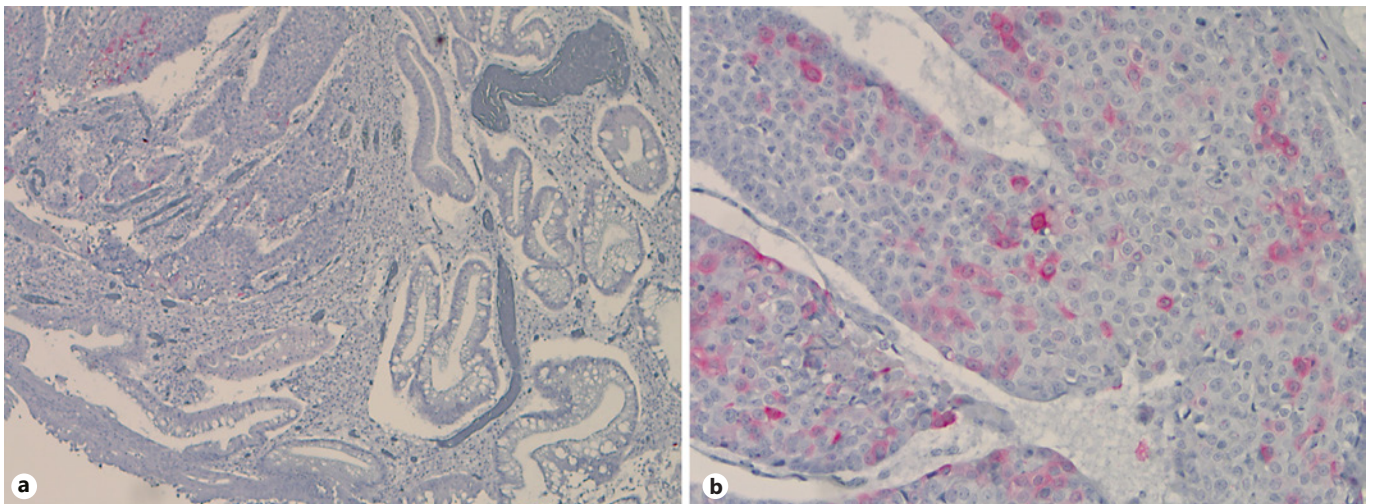


Fig. 2. Immunohistochemistries for cytokeratin (CK) 5/6 with negative staining of the AC (**a**) and positive results in the SCC (**b**).

SCC arising in Barrett's esophagus and/or collision tumor comprising SCC and AC elements have been documented in the literature, pointing to ambivalent carcinogenic field effects [1–3]. Concurrent SCC and Barrett's carcinoma has occasionally been reported in Barrett's esophagus before, however, to the best of our knowledge, not with the Barrett's segment itself [4–6]. Of interest, the patient had a mixed risk profile, including obesity and metabolic syndrome (Barrett's) and heavy smoking (SCC). The distinct molecular mechanisms for a presumed field cancerization within a Barrett's esophagus, which has been discussed in the literature, however, remain elusive.

Statement of Ethics

The patient gave written informed consent for publication (including the publication of images).

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Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

V.Z. – clinical care, drafting and finalization of manuscript; B.B. – pathology care, finalization of manuscript; M.M. – pathology care, finalization of manuscript; M.G. – surgical care, finalization of manuscript.

Data Availability Statement

Not applicable (clinical routine case).