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Middle-Age New-Onset Dysphagia

Renato Medas[a, b] Gany Mussagi[c] Pedro Moutinho-Ribeiro[a, b]
Joanne Lopes[d] Guilherme Macedo[a, b]

[a]Gastroenterology Department, Centro Hospitalar Universitário de São João, Porto, Portugal; [b]Faculty of Medicine of the University of Porto, Porto, Portugal; [c]Gastroenterology Department, Maputo Central Hospital, Maputo, Mozambique; [d]Pathology Department, Centro Hospitalar Universitário de São João, Porto, Portugal

Keywords
Esophageal metastasis · Breast cancer · Endoscopic ultrasonography · Fine-needle biopsy

Disfagia de início recente na meia-idade

Palavras Chave
Metástase esofágica · Cancro da mama · Ultrassonografia endoscópica · Biópsia aspirativa com agulha fina

A 59-year-old woman who underwent radical mastectomy due to multifocal mixed invasive ductal and micropapillary breast carcinoma presented with a 3-month history of progressive dysphagia for solids. After surgery, she underwent adjuvant chemoradiotherapy and hormone therapy, without clinical or radiological signs of recurrence during an 18-year follow-up period.

Gastroscopy and computed tomography were unremarkable. The contrast esophagogram revealed a slight narrowing of the proximal esophagus (besides the physiological aortic arch compression), persistent throughout the examination, but with normal contrast progression. Due to the progressive dysphagia worsening, she was referred to gastroenterology.

Gastroscopy with peri-procedural fluoroscopy was repeated and showed a protruded yellowish area, between 25 and 27 cm from the incisors, suggestive of a submucosal lesion or extrinsic compression (Fig. 1a, b). Fluoroscopic findings were similar to the previous evaluation (Fig. 1c). Endoscopic ultrasound (EUS) revealed a hypoechogenic lesion with well-defined contours and limits, measuring 15.8 × 7.8 mm, originating in the muscle layer and with intimal contact with the aortic arch, without local invasion (Fig. 1d, e). Despite resistance, the scope was able to traverse de stenosis. Then, an EUS-guided 19-gauge fine-needle biopsy (FNB) was performed.

Histopathological examination revealed nuclear overlapping and hyperchromatic aggregates of epithelial cells infiltrating the striated muscle. Strong nuclear staining of estrogen receptors was present in 100% of the neoplastic cells (Fig. 2a, b). These findings were compatible with esophageal metastasis from breast cancer. Palliative treatment with letrozole and ribociclib was initiated, and the patient reported symptomatic improvement.

Esophageal metastasis from breast cancer is rare, with a prevalence of 4.2–5.9% in autopsy studies, despite only 0.59% of patients having dysphagia [1]. A large case series (n = 2,246) reported a 0.4% prevalence of breast cancer esophageal metastases over an 18-year period [2]. The middle third of the esophagus is the

karger@karger.com
www.karger.com/pjg

Correspondence to:
Renato Medas, renatogmedas@gmail.com

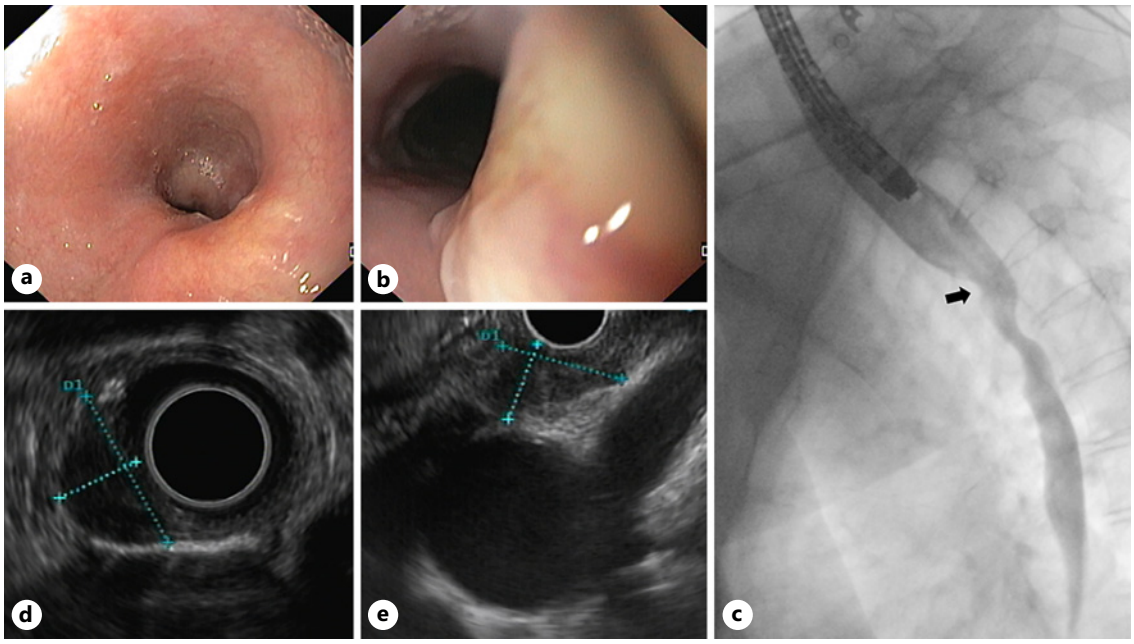

Fig. 1. a, **b** Endoscopic view of an elevated yellowish area covered with normal-appearing mucosa. **c** Normal contrast progression, despite the presence of a 15 mm narrowing of the proximal esophageal lumen (arrow). EUS revealed a hypoechogenic mass with well-defined contours and limits, centered in the muscle layer and with intimal contact with the aortic arch, maintaining the cleavage plane (**d**: radial probe, **e**: linear probe).

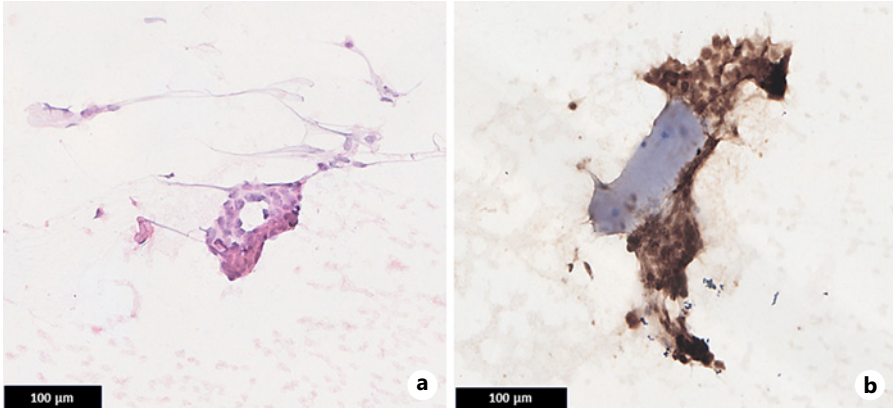

Fig. 2. a Nuclear overlapping and hyperchromatic aggregates of epithelial cells. **b** Neoplastic cells showed strong nuclear staining of estrogen receptors and infiltrate the striated muscle.

most frequently affected site, probably due to the involvement of tracheobronchial lymph nodes and lymphatic drainage into the mediastinum [3]. The average time between the onset of dysphagia and diagnosis is 8 months. Diagnosis may be difficult since esophageal metastatic lesions are almost always located below the mucosal plane, originating from the outside layers to inwards [4]. Thus, standard mucosal biopsy specimens are often not diagnostic. In turn, EUS-FNB can improve diagnostic accuracy [5]. When EUS-FNB is not feasible, mucosal-incision-assisted biopsy or single-incision needle-knife biopsy are valid alternatives. Diagnosis of esophageal metastasis from breast cancer is challenging and should be considered in every patient with a clinical history of this neoplasia, regardless of the follow-up period.

Statement of Ethics

Informed consent was obtained from the patient for publication of the medical case and any accompanying images. Ethical approval by the Ethical Committee was not required due to local laws.

Conflict of Interest Statement

None of the authors acted as reviewer or editor of this article. None of the authors disclosed personal conflicts of interest or financial relationships relevant to this publication.

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Author Contributions

Renato Medas and Gany Mussagi prepared the manuscript, did the literature review, and created the first draft. Pedro Moutinho-Ribeiro performed the procedure and supervised the manuscript preparation. Joanne Lopes identified the pathology, prepared histopathology images, and reviewed the manuscript. Guilherme Macedo performed the critical expert review and approved the final manuscript.

Data Availability Statement

All data generated or analyzed during this study are included in this article. Further inquiries can be directed to the corresponding author.

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