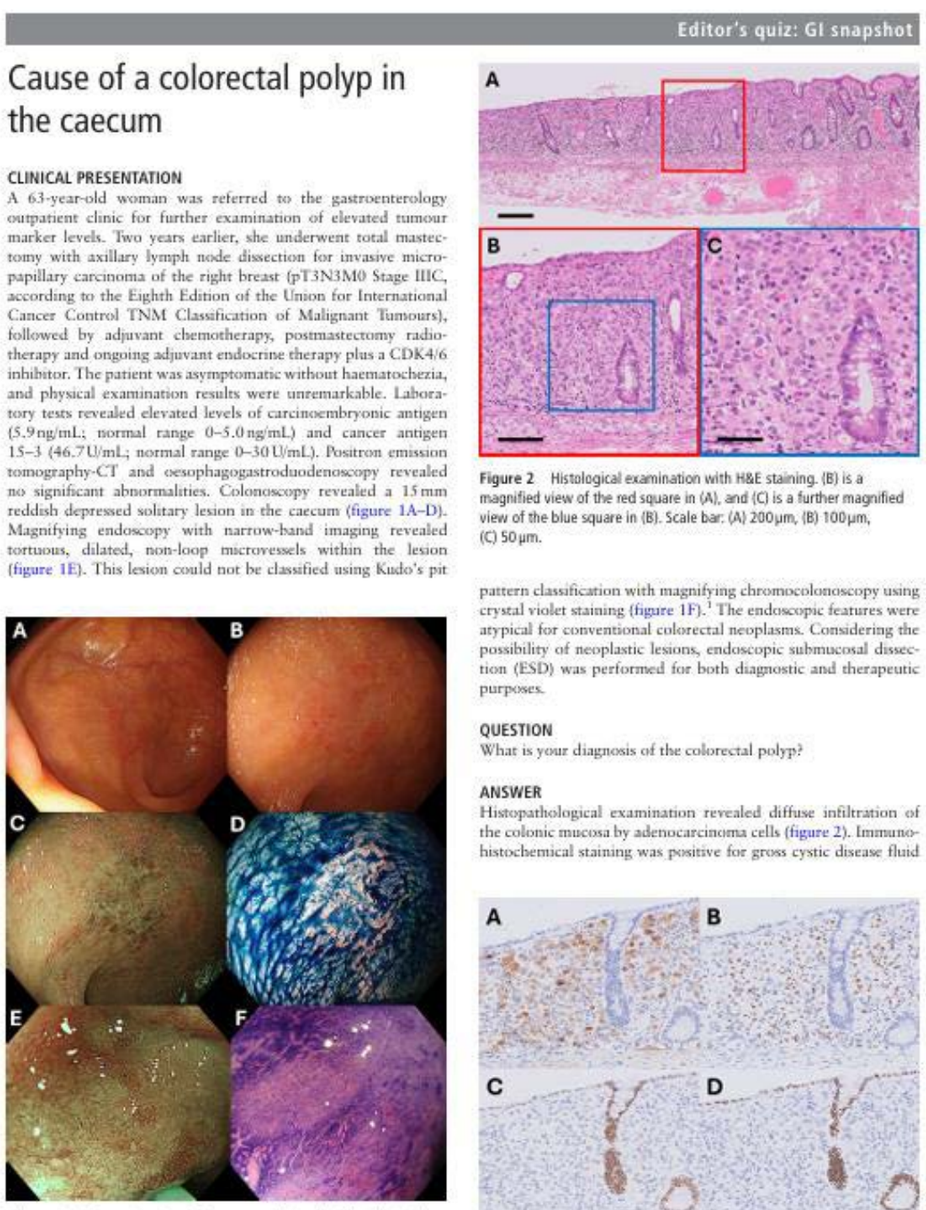
図 1



Editor's quiz: GI snapshot

Cause of a colorectal polyp in the caecum

CLINICAL PRESENTATION

A 63-year-old woman was referred to the gastroenterology outpatient clinic for further examination of elevated tumour marker levels. Two years earlier, she underwent total mastectomy with axillary lymph node dissection for invasive micropapillary carcinoma of the right breast (pT3N3M0 Stage IIIC, according to the Eighth Edition of the Union for International Cancer Control TNM Classification of Malignant Tumours), followed by adjuvant chemotherapy, postmastectomy radiotherapy and ongoing adjuvant endocrine therapy plus a CDK4/6 inhibitor. The patient was asymptomatic without haematochezia, and physical examination results were unremarkable. Laboratory tests revealed elevated levels of carcinoembryonic antigen (5.9 ng/mL; normal range 0–5.0 ng/mL) and cancer antigen 15–3 (46.7 U/mL; normal range 0–30 U/mL). Positron emission tomography-CT and oesophagogastroduodenoscopy revealed no significant abnormalities. Colonoscopy revealed a 15 mm reddish depressed solitary lesion in the caecum (figure 1A–D). Magnifying endoscopy with narrow-band imaging revealed tortuous, dilated, non-loop microvessels within the lesion (figure 1E). This lesion could not be classified using Kudo's pit pattern classification with magnifying chromocolonoscopy using crystal violet staining (figure 1F).[1] The endoscopic features were atypical for conventional colorectal neoplasms. Considering the possibility of neoplastic lesions, endoscopic submucosal dissection (ESD) was performed for both diagnostic and therapeutic purposes.

Figure 1 Endoscopic views of the caecum lesion (A, B) in white-light imaging, (C) in narrow-band imaging, (D) with indigo carmine dye spraying, (E) with magnifying endoscopy using narrow-band imaging, and (F) with magnifying chromocolonoscopy using crystal violet staining.

QUESTION

What is your diagnosis of the colorectal polyp?

ANSWER

Histopathological examination revealed diffuse infiltration of the colonic mucosa by adenocarcinoma cells (figure 2). Immunohistochemical staining was positive for gross cystic disease fluid protein 15 (GCDFP-15) (figure 3A) and GATA-binding protein 3 (GATA3) (figure 3B), markers of mammary differentiation, but negative for caudal type homeobox 2 (CDX2) (figure 3C) and hepatocyte nuclear factor 4 alpha (HNF4a) (figure 3D), markers of intestinal differentiation. These findings supported the diagnosis of colonic metastasis originating from breast cancer. Lymphatic invasion was observed, and the vertical margin was positive. Adjuvant therapy was discontinued, and chemotherapy for stage IV breast cancer was initiated. The patient has been followed for 6 months after ESD and has remained free of recurrence.

Figure 3 Immunohistochemistry of the cancer cells was positive for (A) GCDFP-15 and (B) GATA3, and negative for (C) CDX2 and (D) HNF4α.

Breast cancer commonly metastasises to the lungs, bones, liver and brain, and rarely to the gastrointestinal tract.[2] In most cases, metastases tend to develop in the stomach and small intestine, while colon metastases are rare. Their endoscopic appearance varies, presenting as large masses, irregular wall thickening or small polyps.[3] Definitive diagnosis requires a detailed pathological evaluation. Histologically, colonic metastases exhibit nests of poorly differentiated non-glandular tumour cells. Immunohistochemical analysis is crucial for differentiating breast cancer colon metastases from primary colorectal neoplasms and other metastases.[4]

We encountered a rare case of colon metastasis from breast cancer presented as a small colonic polyp. This case highlights the importance of careful endoscopic evaluation of colonic polyps and the need to consider colorectal metastasis from breast cancer in patients with breast cancer.

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図 2