

## Endometrioma of the sigmoid colon presenting with intestinal obstruction

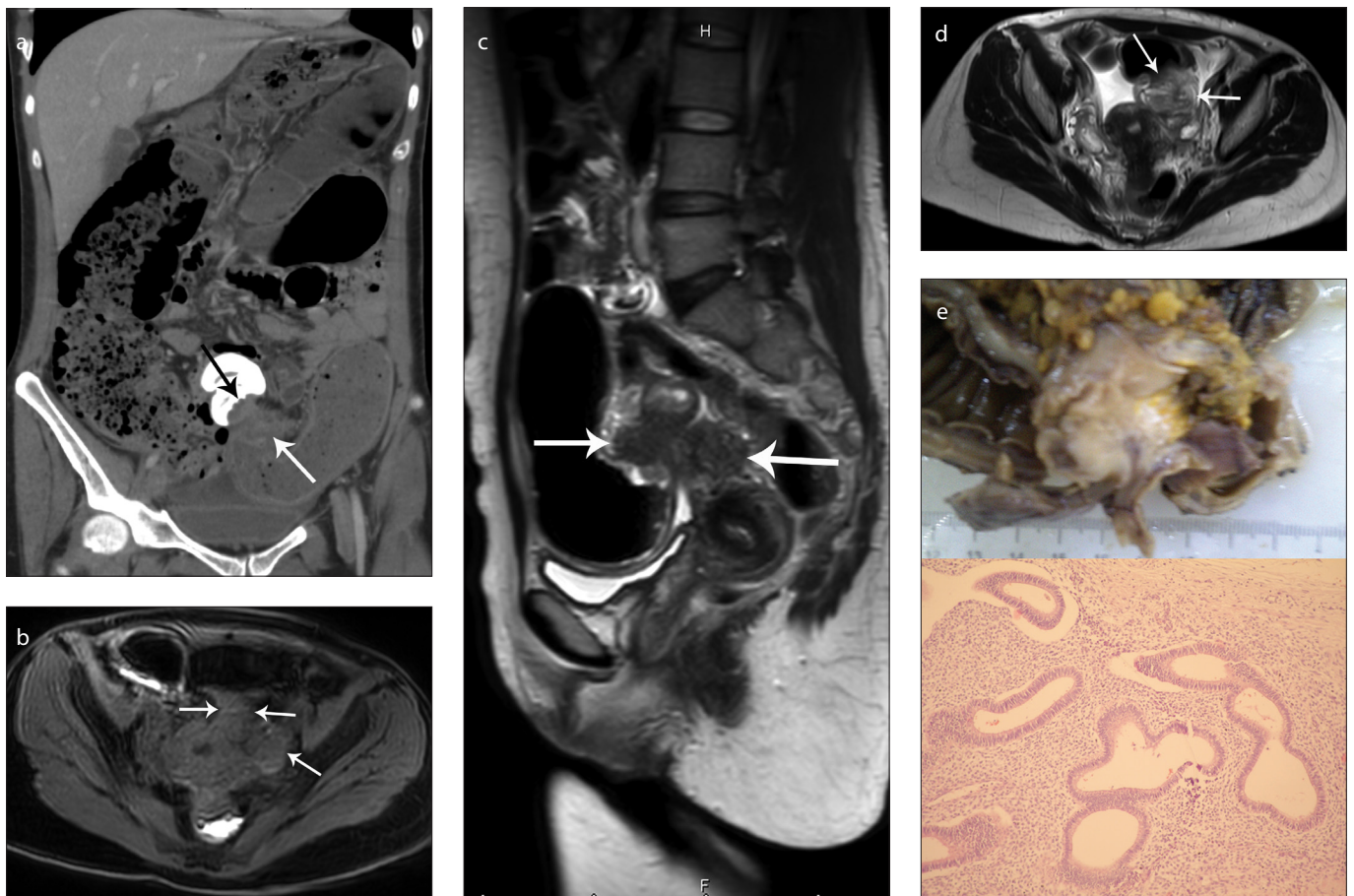
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Dear Editor,

We read with great interest the review article “Shining light in a dark landscape: MRI evaluation of unusual localization of endometriosis” by Gui et al. (1) in the July-August 2017 issue of *Diagnostic and Interventional Radiology*; we congratulate the authors on their great work. However, we noticed that they omitted an atypical clinical presentation of intestinal involvement of endometriosis;

we would like to comment on the article with an exemplary case. Intestinal endometriosis has usually been reported as a single case or small case series, although not rare (2, 3). The lower rectosigmoid colon is the most common localization of the disease, followed by the rectovaginal septum, the distal part of the small intestine, the cecum, and the appendix. The symptoms of intestinal involvement depend on the severity and location of the disease. The severity of disease depends on the depth of invasion into the bowel wall, and typically occurs with chronic symptoms. Although deep infiltrating endometriosis with intestinal serosal involvement is not uncommon as stated in the introduction section of the article, endometriosis causing acute large bowel obstruction is rare and can be confused with a wide range of other diseases, such as carcinoma or Crohn’s disease (4). The typical magnetic resonance imaging findings of the disease include a hypointense mass on T2-weighted images due to induced fibrosis and hypertrophy of the muscularis mucosa with or without hyperintense hemorrhagic foci on T1-weighted images with fat suppression, abutting the



**Figure. a–e.** Endometriosis of the sigmoid colon in a 41-year-old woman with lower abdominal pain. Intravenous and rectal contrast-enhanced coronal maximum intensity projection multidetector computed tomography image (a) shows a solid mass obstructing the sigmoid colon (black and white arrows). Axial T1-weighted fat-suppressed magnetic resonance image (b) shows a solid mass without any hyperintense hemorrhagic focus. These imaging findings suggest sigmoid colon carcinoma rather than endometrioma. Sagittal and axial T2-weighted magnetic resonance images (c, d) show a heterogeneous low and high signal intensity mass lesion on the left side of the pelvis causing sigmoid colon obstruction due to advanced deep pelvic endometriosis (arrows). Macroscopic (top) and microscopic (bottom; hematoxylin eosin staining ×400) images of the specimen on histopathologic examination (e) reveal endometriosis.

bowel wall (Fig.). When present, the “mushroom cap” sign is considered a specific finding of solid invasive endometriosis of the rectosigmoid colon on T2-weighted imaging and include a low signal intensity of the hypertrophic muscularis mucosa covered with high signal intensity mucosa and submucosa (5). Nevertheless, the preoperative imaging diagnosis of intestinal endometriosis is challenging and most often occurs after surgery, since it is frequently confirmed by histologic examination.

### Conflict of interest disclosure

The author declared no conflicts of interest.

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## Author's Reply

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We thank the authors for their interest in and thoughtful comments on our work. Their letter is interesting and contributes to the existing literature on the topic.

However, our paper was focused on unusual and rare localization of pelvic (cervix, vagina, round ligaments, ureter, and nerves) and extrapelvic endometriosis, including subphrenic fold and abdominal wall. In this setting, we have not included intestinal endometriosis because is not so rare as the other described localizations. In fact, intestinal endometriosis has been reported in the literature in 4%–37% of patients with deep pelvic disease (1–4). Moreover, the rectosigmoid colon localization, described by the

authors, is the intestinal segment most commonly involved in endometriosis (ranging, 75%–90%) (4). The purpose of our work was to remind the radiologists the possibility of atypical localizations of endometriosis, in order to achieve the diagnosis looking around all pelvic and extrapelvic spaces. Colorectal endometriosis usually causes severe intestinal symptoms including pelvic pain, rectal bleeding, and problems with defecation. In this setting, the case reported by the authors is interesting due to the atypical clinical presentation of a common intestinal localization of endometriosis. The radiologists, especially in the emergency department, have to remember that intestinal occlusion may be due to an endometriotic intestinal localization, in rare cases.

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