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Image of the Month

Endometriosis-associated colonic adenocarcinoma infiltrating endometriosis-lined ovarian cyst

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A 37-year-old female presenting with abdominal pain, pelvic mass and clinical symptoms indicating peritonitis, underwent diagnostic work up. Computed Tomography (CT) imaging with contrast injection showed an air-containing left ovarian mass, adhering to the sigmoid colon. (Fig. 1, pictures A-B). The sigmoid and pelvic mass excision was performed. At gross examination, the sigmoid colon evidenced an exophytic ulcerated lesion, whereas the pelvic mass was cystic, measuring 8 × 7 cm. Histology

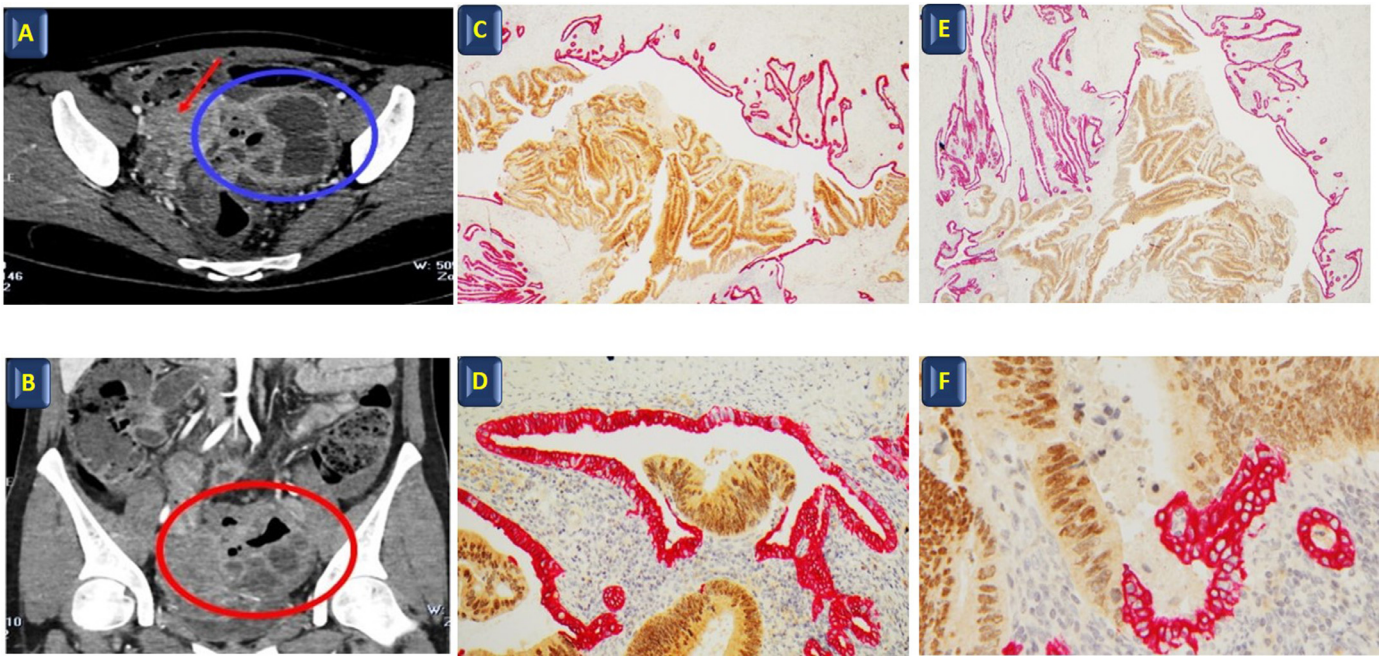

Fig. 1. A-B: Coronal and axial CT scans after contrast injection showing an air-containing left ovarian mass (*circle*) adhering to the sigmoid colon and dislocating the uterus (*red arrow*).
C-D: Intestinal adenocarcinoma in the setting of endometriosis focus in the muscular intestinal wall. Double immunostaining for CDX2 [brown] and CK7 [red] (C: magnification x10; D: magnification x40)
E-F: Endometriosis-lined cyst wall with intestinal adenocarcinoma infiltration. Note the overlap of neoplastic intestinal and non-neoplastic endometrial epithelium. Double immunostaining for CDX2 [brown] and CK7 [red]. (E: magnification x10; F: magnification x60). (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

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revealed a moderately differentiated and locally advanced intestinal adenocarcinoma associated to gastro-intestinal (GI) endometriosis with an endometriosis-lined left ovarian cyst, which until then was not known to the patient. The tumour has been shown to infiltrate both the visceral fat and the cystic wall. Immunostaining for cytokeratin (CK) 7,CD10, oestrogen and Progesterone Receptor (ER,PR) and PAX-8 were positive in the endometriosis-lined cyst, whereas CDX2 CK20, pCEA were positive in colonic adenocarcinoma. (Fig. 1, pictures C-D-E-F). Pelvic endometriosis was subsequently confirmed by RM imaging (*not shown*) after surgical resection. GI endometriosis frequently occurs in pelvic endometriosis and it could be misdiagnosed as intestinal adenocarcinoma, even though the absence of surrounding endometrial stroma, the presence of desmoplasia, "dirty" necrosis and high-grade nuclear atypia favour adenocarcinoma [1]. GI endometriosis could harbour endometrioid adenocarcinoma; in such instances, endometrioid adenocarcinoma is favoured by association to endometriosis, intestinal mural involvement, squamous differentiation [2]. A colonic adenocarcinoma infiltrating an endometriosis-lined ovarian cyst has never been described before.

Conflict of Interest

None declared.

References

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