Case report

About a degeneration of a colon endometriosis cystic foci

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ABSTRACT

Introduction: Malignant transformation of endometriosis is a rare entity. Its occurrence in the digestive system is exceptional. In fact, due to the atypical symptoms, the diagnosis is often delayed at an advanced stage. So, the treatment strategy should be discussed in a multidisciplinary meeting.

Aim: Our objective was to describe a challenging diagnosis of an in situ carcinoma developed on a cystic foci of endometriosis of the colon in a woman without a particular past medical history.

Case study: A 32-year-old female patient presented with abdominal pain for about six months. The different explorations have concluded to an ovarian cystic tumour. Intraoperatively, the mass seemed to be developed in the right colon. This led to perform a right hemicolecotomy. Gross findings consisted in a sub-mucosal 10-centimeters cyst and microscopic features were consistent with an in situ carcinoma developed on a cystic endometriosis foci.

Discussion: This case illustrates the malignant potential of endometriosis especially when it is misdiagnosed.

Conclusions: Besides the fact that this case was illustrated by radiological and microscopic features, it puts emphasis on the non consensual management of a rare lesion of the colon.

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1. INTRODUCTION

Endometriosis is defined as a localization of hormone-response endometrium mucosa outside the endometrium. It can be gonadal or extragonadal.1-3 The frequency of extragonadal endometriosis in the bowel is estimated to involve 3% to 37% of women with pelvic endometriosis and most lesions are found in the sigmoid colon and rectum.4,5 The malignant transformation of these lesions accounts for 0.3%–1% of the cases and their diagnosis is based on microscopic features. In fact, no clinical or radiological features are specific.

2. AIM

Our objective was to describe a challenging diagnosis of an in situ carcinoma developed on a cystic focus of endometriosis of the colon in a woman without a particular past medical history.

3. CASE STUDY

A 32-year-old female was admitted to the department of surgery for a 6-month lasting abdominal pain. The patient was multiparous with two pregnancies and she had no history of gynecological surgery. The patient did not report a change in the intestinal transit or catamenial change in symptoms. Moreover, she wasn’t using estrogen therapy. Gynecological and abdominal examination was normal. Abdominal ultrasound showed a 10-centimeter pelvic mass with dual solid-cystic component (Figure 1). Abdominal and pelvic computed tomography (CT) scan showed a heterogeneous pelvic mass measuring 9 cm with a dual component and a significant contrast enhancement at the wall. According to the radiological features, this mass was supposed to be linked to the right ovary. No distant metastasis was detected (Figure 2). Ovarian tumor markers were negative. A subumbilical midline laparotomy was performed and showed a mass of the right colon with multiple lymph nodes of the right meso-colon. The exploration of the rest of the abdominal cavity did not show other abnormalities. The uterus and the adnexa were normal. A right hemicolectomy with a latero-lateral ileocolic anastomosis was performed. Extemporaneous exam was performed on an ileocolic specimen characterized by a sub-mucosal cystic lesion measuring 7 cm and filled with necrotic material and hemorrhage (Figure 3). It concluded to a cystic benign lesion. The definite exam showed a colonic mucosa with a sub-mucosal cystic lesion dilacerating the muscularis mucosa, with a normal colonic layer (Figure 4a). The cystic lesion was covered by a unistratified epithelium mimicking endometrium mucosa (Figure 4b). The epithelium was characterized by focal papillary projections (Figure 4c). These formations were line by atypical epithelial cells characterized by hyperchromatic and atypical nuclei. These atypical cells were limited to...
the surface and didn’t infiltrate the basal lamina. All the cystic lesion were included and studied in order to rule out a possible infiltration. Sixteen lymph nodes were sampled from the meso-colon and were benign. An immunohistochemical study was performed using antibodies against cytokeratin (CK) 7, CK20, hormonal receptors and mib-1. Tumour cells expressed diffusely and intensely the CK7 (Figure 4d). On the other hand, the tumour cells didn’t express the CK20 antigen (Figure 4e). The diagnosis of in situ carcinoma developed on a cystic endometrioid foci was retained and a biannual observation of the patient was established without a particular event.

4. DISCUSSION

This case illustrates a rare and challenging cystic lesion of the colon in a young woman without a particular past medical history and especially no endometriosis. The diagnosis of in situ carcinoma developed on a cystic endometriosis foci was established and was particularly challenging.

A few cases of degeneration of endometriosis foci of the colon have been reported in the English literature. Almost all patients presenting such a lesion had a past medical history of endometriosis or have a history of cyclic intestinal symptoms during years. Radiologic features aren’t specific of these lesions. Tranvaginal ultrasound after bowel preparation is reported to be the best initial imaging method for endometriosis, since it can detect foci of deep endometriosis as an irregular hypoechoic mass with or without hypoechoic or hyperechoic foci penetrating into the hypoechoic muscularis propria layer wall. It may also show as long, nodular hypoechoic lesions along the intestinal wall. A number of characteristic appearances of endometriosis of the rectosigmoid area have been reported, including the ‘pyramid sign,’ the ‘comet sign,’ and the ‘Indian headdress sign.’ Ultra-sound examination is also known to be operator-dependent, time-consuming. On contrastenhanced CT imaging, endometrioid foci typically appear as soft-tissue density masses, indistinguishable from other gastrointestinal pathologies either benign or malignant. Magnetic
resonance imaging shows eccentric mass/masses infiltrating into the intestinal wall causing luminal narrowing with associated fibrosis and smooth muscle hyperplasia appearing at times as irregular, speculated, hypo-intense lesions on T2-weighted images. Fat saturated T1-weighted images showing the negativity of CK20 antibody which is quite specific of a primary colonic adenocarcinoma. In our case, there was no infiltration proved despite the inclusion of the lesion. What was particular to our observation was the atypical cells forming papillary projections on the surface which were characterized by a high proliferative index. This kind of lesion was reported in a patient by Schutz R and colleagues. In fact, they reported a similar non infiltrating lesion classified as an in situ carcinoma.

The treatment of digestive endometriosis is mainly based on surgical resection according to many authors. On the other hand, the mainstay treatment of malignant transformation of digestive endometriosis is based on multimodal therapy including surgery resection and chemotherapy. Indeed, only oncologic resection optimizes cure but even though passing on healthy margin, recurrence remains possible. In our case, there was no infiltration, the surgical margins were healthy and all the lymph nodes analysed were benign. These findings made our surgeons and oncologists advocate for a close observation without adjuvant chemotherapy.

Our patient hasn’t presented complications since a 2-year follow-up period.

5. CONCLUSIONS

Besides the fact that this case was illustrated by radiological and microscopic features, it puts emphasis on the non consensual management of a rare lesion of the colon.

Conflict of interest

The authors declare that they have no competing interests and disclose any personal or financial support.

References