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Endometroid adenocarcinoma arising from adenomyosis in a young patient with infertility : a case report and literature review.

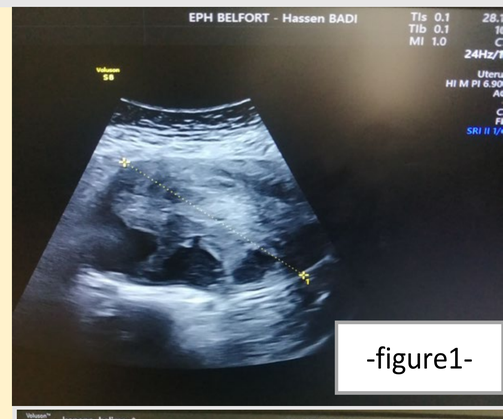
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Introduction

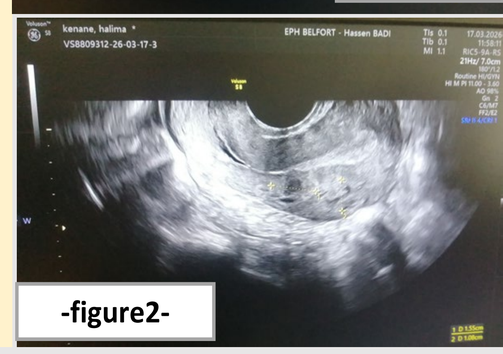
Adenomyosis is a frequent finding in endometrial carcinoma patients. Endometrioid adenocarcinoma is the most common type of endometrial carcinoma; however, endometrioid adenocarcinoma arising from adenomyosis (EC-AIA) is extremely rare.

Clinical case

In this case, we describe a 35-year-old-woman, G0P0, with 18 months of primary infertility who consulted us because she desired pregnancy. The husband, a 46-year-old, he is a non-smoker with no history of substance abuse. A semen analysis revealed asthenospermia. The medical history of the woman includes lymph node tuberculosis, treated and declared cured in 2024. she has a regular menstrual cycles. Hormonal levels: FSH 9.75, AMH 0.8 (type 4 of Poseidon). The hysterosalpingography finded a patent fallopian tubes. Ultrasound **-figure1-** revealed an enlarged uterus with multiple fibroids. a pelvic MRI was ordered for mapping and characterization of the fibroids, showing a globular uterus with an adenomyotic appearance containing several benign fibroids (about 8), including four moderately sized interstitial fibroids and a large sub serosal fibroid at the uterine fundus (≈10 cm) remodeled, without any suspicious signs of malignancy. The patient required surgical treatment for her fibroids before IVF. The histological study of the largest fibroid supports the diagnosis of endometrioid adenocarcinoma arising from foci of adenomyosis, most likely with the presence of neoplastic emboli (about 6). Immunohistochemical profile P53 mutated profile. A hysteroscopy with endometrial biopsy revealed an undamaged endometrium, and a postoperative ultrasound and pelvic MRI showed a small focus of external adenomyosis - **figure2-**.



-figure1-



-figure2-

discussion

The preoperative distinction between complex adenomyosis, atypical fibroids, and malignant lesions remains difficult despite advances in imaging, particularly pelvic MRI. The absence of specific signs may lead to an initial conservative approach. The histological discovery of endometrioid adenocarcinoma arising in adenomyosis raises the question of the tumor's origin: malignant transformation in situ of the adenomyosis versus extension of an undiagnosed endometrial cancer. Strict histopathological criteria are necessary to confirm the adenomyosis origin.

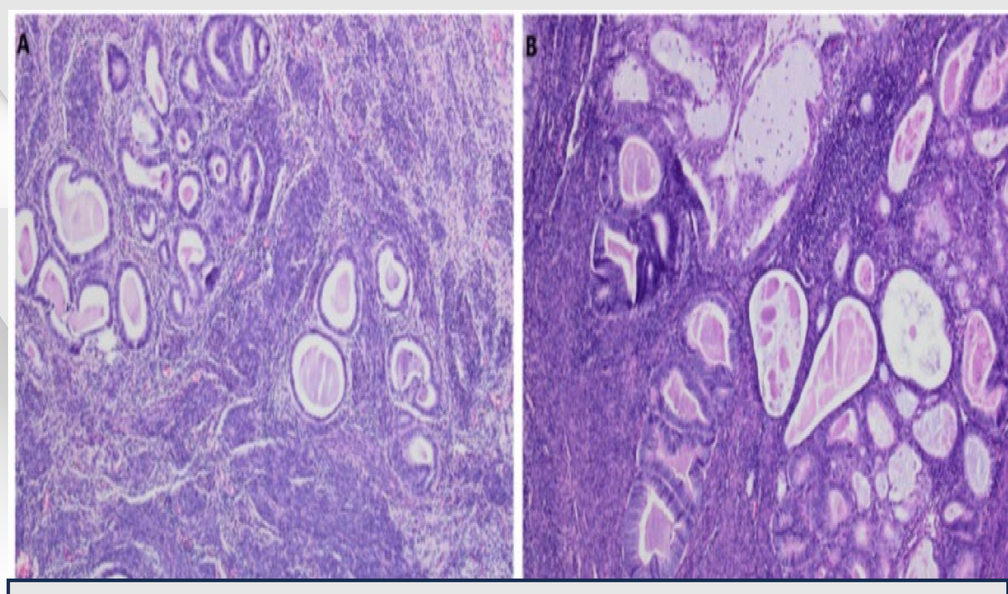


Fig3:endometroid carcinoma arisingin adenomyosis.**A.**normal endometrial glands in adenomyosis(HE×10)**B.**endometroid adenocarcinoma and atypical lesions (HE×10).

Sampson and Scott criteria for the diagnosis of EC-AIA:

1. Presence of adenomyosis: ectopic endometrial glands and stroma within the myometrium.

2. Histologically identified endometrioid carcinoma.

3. Direct transition between the benign epithelium of adenomyosis and the carcinomatous tissue (key finding).

4. Absence of a primary tumor in the eutopic endometrium or an endometrial tumor insufficient to explain the involvement (to confirm the origin in adenomyosis).

Conclusion:

The malignant transformation of adenomyosis into endometrioid adenocarcinoma remains an exceptional event, with a limited number of cases reported in the literature. Available data suggest that this diagnosis is most often made incidentally after histopathological analysis, due to the absence of specific clinical and radiological criteria allowing for reliable preoperative identification.

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