

Microscopic endometrioid carcinoma arising in endosalpingeal endometriosis

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Summary

We present a case of microscopic adenocarcinoma arising in the right fallopian tube, which was incidentally found in 74-year-old woman undergoing total abdominal hysterectomy with salpingo-oophorectomy for uterine myoma, hematometra and bilateral hydrosalpinx. A small focus of endometrioid adenocarcinoma confined within the endosalpingeal mucosa of the right fallopian tube associated with endometriosis was fortuitously found during histological examination. Our case seems to be unique since it shows an evident filiation between the lesions of tubal endometriosis and an adjoining focus of microscopic carcinoma. This is the second case report of a microscopic endometrioid carcinoma associated with endosalpingeal endometriosis.

Key words: Fallopian tube carcinoma; Endometriosis.

Introduction

Endometriosis has long been recognised to undergo malignant transformation. The criteria for malignant transformation that have been suggested over the years include: (1) demonstration of both cancerous and benign endometrial tissues in the same organ, especially if contiguous;

(2) demonstration of cancer arising in the tissue and not invading it from another source; and

(3) presence of tissue resembling endometrial stroma surrounding characteristic glands [2].

Endometrioid and clear cell carcinomas are the malignancies most commonly reported in women with endometriosis [2, 3]. Only a small number of studies have evaluated the potential for malignant transformation of endometriosis in a large number of consecutive cases in which ovarian endometriosis has been documented [1, 2]. Malignant transformation of extraovarian endometriosis is even less well studied and its incidence is not known [2, 3]. There are only a few case reports regarding such an association with the fallopian tubes [2, 4-6].

Case Report

A 74-year-old female was admitted with pelvic pain and intermittent discharge of clear or blood-tinged fluid spontaneously or on pressure (hydros tubae profluens) [7]. On pelvic examination the uterus was hypoplastic and bilateral adnexal masses were present. Ultrasound examination showed bilateral hydrosalpinx. The serum CA-125 level was 40 U/ml. These clinical and laboratory data suggested fallopian tube carcinoma. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. At macroscopic examination the ovaries were unremarkable with hematometra and the bilateral

fallopian tubes measured 5.0 cm in length and 1.2 cm in diameter. The diameter of the lumens were approximately 0.9-1.0 cm. Both fallopian tubes were sectioned serially in approximately 0.3-cm intervals. No grossly identifiable lesions were seen on the external surface or within the lumen of either fallopian tube. Frozen-section examination revealed hematosalpinx associated with endometriosis. The fallopian tubes were entirely submitted for paraffin embedding. The sections were stained with hematoxylin-eosin (HE).

At microscopic examination the ovaries were unremarkable and a small focus of adenomyosis was detected in the myometrium. The bilateral fallopian tubes showed endosalpingeal endometriosis with attenuated plicae lined by endometriotic epithelium with subepithelial stroma and numerous hemosiderin-laden macrophages (Figure 1). Within the lamina propria of the right fallopian tube there was a microscopic focus of endometrioid carcinoma characterized by complex glandular and cribriform patterns (Figure 2). Nuclear pleomorphism and mitotic activity were marked. The tumor, which measured approximately 0.2 cm in the greatest dimension, was present in

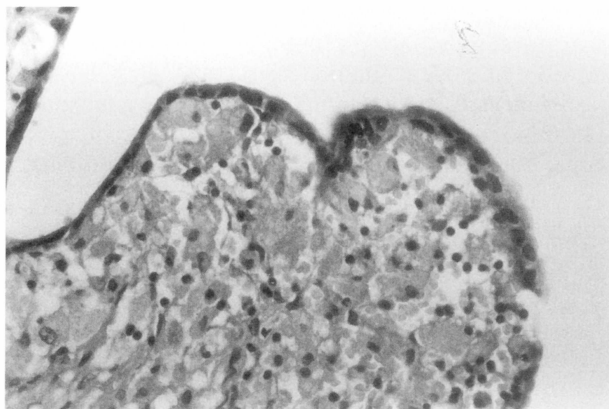


Figure 1. — Endosalpingeal endometriosis with attenuated plicae lined by endometriotic epithelium with subepithelial stroma and numerous hemosiderin-laden macrophages.

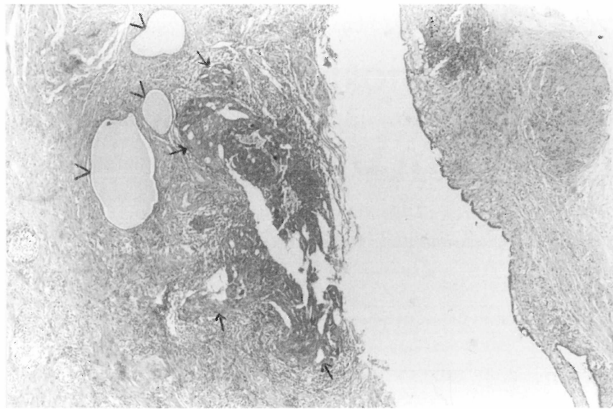


Figure 2. — Within the lamina propria a microscopic focus of endometrioid carcinoma can be seen characterized by complex glandular and cribriform patterns (arrow) in association with endometriosis (arrowhead).

one of the 12 serial cross sections. Nests of the tumor were in contiguity with the surrounding nonneoplastic endometriosis. The ultimate diagnosis was microscopic endometrioid fallopian tube carcinoma arising in endosalpingeal endometriosis.

Discussion

Although endometriosis has been considered as a malignant precursor at other sites like the ovary and uterus [2, 8], there are a few case reports regarding such an association with the fallopian tube [2, 4-6].

Griffith *et al.* [6] reported a case of sex cord tumor with annular tubules associated with endometriosis of the fallopian tube. De la Torre *et al.* [4] described clear cell carcinoma of the fallopian tube arising in endometriosis. In the series of Stern *et al.* there were two fallopian tube carcinomas arising in endometriosis, one of which was clear cell and the other serous carcinoma. Only a single case of extraovarian endometrioid carcinoma associated with endometriosis was present in this trial. In Dia Maio *et al.*'s [9] publication, a case with microscopic bilateral adenocarcinoma arising in ovarian endometrial cysts was reported. Bouraoui *et al.* reported the first case of a primitive intraepithelial carcinoma of the fallopian tube showing an evident filiation with endometriosis which was incidentally found during histological examination.

In this report we present the second case of microscopic endometrioid carcinoma associated with endos-

alpingeal endometriosis. Tumor focus could be detected in one of the 12 serial cross sections by entirely submitting the fallopian tubes for paraffin embedding. Thus for the pathologist it is important to section the fallopian tubes serially and to submit every section in cases with endometriosis. Consequently the detection of even a microscopic focus of carcinoma will be possible.

In two small series it was observed that endometrioid carcinomas of the fallopian tube are characteristically noninvasive or only superficially invasive and have a generally favorable prognosis. Therefore this subtype of tubal carcinoma should be distinguished from other types [10, 11].

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