Endometrial carcinoma with ovarian metastases incidentally detected in a 30-year-old infertile patient - case report

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Summary

This is a case of invasive endometrial carcinoma with ovarian metastases incidentally detected in a 30-year-old infertile woman. The patient was asymptomatic. Carcinoma was discovered during hysteroscopy. She was submitted to surgical treatment involving total hysterectomy, bilateral salpingo-oophorectomy and dissection of the pelvic and paraaortal lymph nodes. Postoperative irradiation therapy was performed. Since treatment the patient has been well.

Key words: Endometrial carcinoma; Adenocarcinoma; Ovarian metastases.

Introduction

Endometrial carcinoma is the most common malignancy of the female genital tract. It occurs in both premenopausal and postmenopausal women. The most commonly affected age group is between 50 and 59 years of age. About 2-3% of women will develop endometrial cancer during their lifetimes [1]. Obesity, hypertension, diabetes mellitus, nulliparity and late menopause are classically associated with endometrial cancer, therefore, quality as risk factors. Screening for endometrial cancer should not be undertaken [2]. Approximately 90% of women with endometrial carcinoma have vaginal bleeding or discharge as their only presenting complaint [3]. The primary treatment is surgical. Total abdominal hysterectomy and bilateral salpingo-oophorectomy remain the keystone of therapy. The stage of disease is the most significant variable affecting survival. Other prognostic factors for disease recurrence or survival including tumor grade, histopathology, depth of myometrial invasion, patient age, and surgical and pathologic evidence of extrauterine disease spread. The 5-year survival rate for endometrial cancer following appropriate treatment is 83% for Stage I, 73% for Stage II, 52% for Stage III and less than 27% for Stage IV [4].

Case Report

A 30-year-old patient presented due to examination of the primary infertility cause. She had always been healthy. She had menarche at the age of 13. Menstrual cycles were regular. She had a normal body weight with Body Mass Index values of 22.8 kg/m^2. Blood pressure and sugar levels were within normal limits. In the family history, there were no data on the existence of malignancy. She was regularly gynaecologically checked. Laboratory and biochemical tests performed were normal.

Hormonal analysis findings showed ovulatory dysfunction i.e., anovulatory cycles. Ultrasonographic examination of the small pelvis revealed a normal uterus with intramural myoma in the area of the uterine fundus 15 x 15 mm in size. The endometrium was 18 mm thick and irregular in texture. Subendometrial flow was registered with low resistance index values of around 0.38. The right ovary contained a follicle 14 mm in size. The left ovary had a follicle 12 mm in size. Ultrasonographic examination of the abdomen was normal. The pelvic and paraaortal lymph nodes were not enlarged. The CA-125 tumour marker level was lower than 5 mIU/ml. Hormonal analyses for evaluation of the thyroid function were normal.

Pulmonary radiography was normal. Hysteroscopy was performed. The uterine cavity was found to be 8 cm deep, the endometrium thickened and irregular with stellar growths in the area of uterine fundus. Target biopsy of the endometrium was hysteroscopically performed. The histopathological finding was invasive endometrioid adenocarcinoma, G1, with some papillary areas involved. Immunohistochemical analysis was performed and the initial diagnosis was confirmed. Magnetic resonance imaging of the small pelvis revealed an infiltrative lesion at the posterior uterine corpus affecting and invading the endometrium and progressing to the uterine isthmus. The pelvic lymph nodes were not enlarged and there was no ascitic fluid in the abdominal cavity. The patient was submitted to laparotomy. Classical hysterectomy was performed with partial resection of the right ovary and histological examination performed extempore. Endometrioid adenocarcinoma with squamous differentiation was confirmed with right ovarian metastases. Histological finding are presented in Figure 1. Classic hysterectomy and bilateral salpingo-oophorectomy were performed, as well as pelvic and paraaortal lymphadenectomy, appendectomy and omentectomy.

Aspirate was taken from Douglas cul-de-sac, the left and right paracolic region as well as a swab of the lower diaphragmatic plane for the cytological examination.

The final histopathological finding was endometrioid adenocarcinoma with differentiated squamous metastasis to the right ovary. Carcinoma infiltrated up to 50% of the myometrium. A 15 mm metastatic lesion of endometrial carcinoma was found in the right ovary. The omentum, pelvic and paraaortal lymph nodes were without signs of malignancy. The appendix had signs of chronic inflammation. The cytological finding of the peritoneal fluid aspirate negative. Postoperative irradiation therapy was performed with a dose of 45-50 Gy, transcutaneously in 26 courses and endocavitary radiation with a total tumour dose of 30 Gy per 0.5 cm from the applicator. Since treatment the patient has been well.

Discussion

Endometrial carcinoma is one of the most frequent (the fourth) carcinomas in women [5]. It occurs most commonly in about 75% of postmenopausal women and in 25% of the premenopausal ones. In 4% of the cases, women with endometrial carcinoma are younger than 40

Revised manuscript accepted for publication November 13, 2006

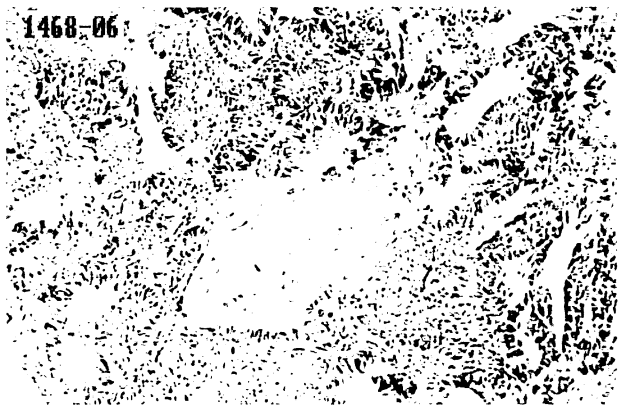

Figure 1. — Adenocarcinoma with squamous differentiation of the endometrium.

[5]. The incidence of endometrial carcinoma is highly age-dependent, and there are 12 cases per 100,000 women of 40 years of age and 84 per 100,000 of 60 years of age [6]. The incidence of this carcinoma is the highest in developed countries and in Japan [7]. The most frequent histological type of endometrial carcinoma is endometrioid carcinoma which occurs in 75-80% of patients [8]. In around 70% of cases, endometrial carcinoma is detected at Stage 1. The incidence of ovarian metastases in women with clinical Stage I endometrial carcinoma is generally around 5%, requiring surgical ovariectomy in younger patients [9]. There is a low risk of ovarian metastases in women with well and medium differentiated endometrial carcinoma, myometrial invasion bound to less than a half of the myometrium, negative peritoneal cytology and no metastases in the lymph nodes. There have been cases of metastases of the carcinoma to the bones, skin and spleen reported [10-12].

Our patient was asymptomatic and CA-125 level were within normal boundaries. Elevated serum CA-125 levels were found in 29% of patients with endometrioid adenocarcinoma. The elevated CA-125 levels correlated with FIGO stage of the disease, i.e., the presence of disseminated cancerous cells in the peritoneal cavity. Out the risk factors that could affect the development of endometrial carcinoma in our patient, infertility was one, probably the result of anovulatory cycles. The literature reports that nulliparous women are at a two to three times higher risk of developing endometrial carcinoma than women who have given birth. Also, infertility as a result of anovulatory cycles increases the risk of endometrial carcinoma. In our patient, asymptomatic invasive endometrial carcinoma was in question. About 5% of these carcinomas are asymptomatic, and in 90% of cases there is vaginal haemorrhage as a single symptom [13].

There have been three cases of endometrial carcinoma described in three premenopausal women in whom the syndrome of polycystic ovaries was diagnosed beforehand [14].

In our patient, carcinoma was localized in the uterine corpus, but also progressed to the lower uterine segment. Histologically, carcinoma of the lower uterine segment more frequently shows a higher degree of differentiation of the endometrioid tumour, with deep invasion of the myometrium, and is less associated with endometrial hyperplasia than the endometrial carcinoma of the uterine corpus [15]. Endometrial carcinomas are radiosensitive and respond well to the radiation therapy. In our patient, transcutaneous and endocavitary radiation was performed. Extended field radiation was not performed since the cytological examination of the peritoneal aspirate for malignant cells was negative. Since undergoing surgical and irradiation therapy the patient has been well. The five-year Stage III endometrial carcinoma survival rate is about 52% [4], while the ten-year ovarian metastatic endometrial carcinoma survival rate is around 46% [16].

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