

Endometrial Adenocarcinoma in a 26-year-old Woman: A case report

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ABSTRACT: Endometrial adenocarcinoma usually occurs after menopause. This tumor is extremely rare in women younger than 30 years. Its treatment includes hysterectomy, bilateral salpingo-oophorectomy, pelvic lymphadenectomy and in some cases, radiotherapy. We report a case of endometrial Adenocarcinoma in a 26-year-old patient. Through this case the authors emphasize the need of endometrial evaluation in young females with abnormal bleeding before starting any medical treatment. Specific problems of endometrial cancer at young age include delay in diagnosis, difficulty in pathologic interpretation of the curetting tissues and the motivation of most patients to preserve their fertility.

KEYWORDS: Endometrial adenocarcinoma; young women; Risk factors; prognosis; treatment.

1 INTRODUCTION

Endometrial adenocarcinoma is predominantly a disease of postmenopausal ladies. However, in 2%–14% of cases, it occurs in young women (less than 40 years old) [1,2]. Especially in women younger than 30 years, the disease is extremely rare. Younger patients present with clinical challenges as far as treatment options are concerned because with standard surgical treatment there is a risk to develop severe complications, which include loss of fertility and surgical menopause. Compared with older women, young women have a similar stage distribution at diagnosis, the majority of cancers presenting as stage I and usually have a good prognosis.

We report the case of a 26-year-old patient with an endometrial cancer diagnosed at Stage IA grade 1 according to the FIGO (International Federation of Gynecology and Obstetrics) 2000 classification of endometrial cancer [3].

2 CASE

A 26-year-old nulligravida, 1,60 in height, weighing 55 Kg was first presented to her local hospital with 10 months of menorrhagia. She was non-smoker and she had not been taking any hormone treatment or oral contraceptives. Her menstrual period was normal. Neither she, nor any other member of her family had diabetes or hypertension. A transvaginal ultrasound showed uterine fibroid making 6 x 5 cm with submucosal component and a thick endometrium of 18 mm. The ovaries were normal. A recent cervical smear test had been negative. The patient underwent myomectomy by laparotomy. The histopathologic examination revealed a well-differentiated endometrial adenocarcinoma stage IA grade 1 according to the FIGO without myometrial invasion on the resected portion of the myometrium. The patient was then referred to our hospital for further treatment. Physical examination revealed a healthy-looking non-obese female. Pelvic examination was normal and a transvaginal ultrasound revealed a normal size uterus with an endometrium 10 mm in thickness. During the extent's assessment, a MRI scan hasn't objectified anomalies. The other abdominal organs were lesion-free. The surgeon and oncologist decided that patient should undergo surgery. Patient underwent a total hysterectomy with bilateral salpingo-oophorectomy and pelvic lymph-adenectomy. Histopathological examination of the operated specimen revealed no residual tumor or lymph node involvement. The surgery was followed by vaginal curietherapy. She remains well with no evidence of recurrence at 12 months following her operation.

3 DISCUSSION

Carcinoma of the endometrium is among the most common gynecological malignancies of female genital tract and accounts for 6% of all cancers in women and 2% of cancer deaths. It is primarily a disease of menopausal and postmenopausal females with the peak incidence in women aged 55-65 years. Approximately 75% of patients are aged 50 years and older and only 5% are younger than 40 years. It is rare below the age of 30 years [4].

This case illustrates that adenocarcinoma of the endometrium can occur in young females despite the fact that the disease mainly affects postmenopausal women. It was presented in our case with abnormal vaginal bleeding which posed diagnostic dilemmas, as at this age dysfunctional bleeding is much more likely.

The most reported risk factors of endometrial cancer are anovular cycles associated with polycystic ovarian syndrome (PCOS), hypertension, diabetes, obesity, the sole use of estrogens and the use of tamoxifen [5]. Several authors [6,7-10] have tried to individualize the risk factors of endometrial adenocarcinoma related specifically to women under 40 years. Younger patients with endometrial carcinoma tend to have a history of estrogen use or hormone-related disorders such as ovarian dysfunction, chronic anovulation, infertility, obesity and PCOS (odds ratio: 3.1; 95% confidence interval: 1.1–7.3) [8]. Our patient had none of these risk factors.

Bokhman has proposed the theory of two pathogenic types of endometrial cancer: estrogen-dependent and -independent [11]. The first type is more common in women with obesity, hyperlipidemia and signs of hyperestrogenism such as anovulatory uterine bleeding, infertility and hyperplasia of the stroma of the ovaries and endometrium. Conversion of adrenal androstenedione to estrone in the adipose tissue is responsible for the higher estrogen levels in obese women. Additionally these women have lower levels of sex-hormone-binding globulin, which in turn leads to a greater bioavailability of estrogens, which contribute to the pathogenesis of endometrial carcinoma. In these cases cancer is usually low grade with little, if any, myometrial invasion with a favorable prognosis. The second type occurs in women who have no evidence of hyperestrogenism and is usually poorly differentiated, deeply invasive with an unfavorable prognosis. It seems that the more the woman is young, the more likely the cancer to be estrogen-dependent.

The most important prognosis factors of endometrial adenocarcinomas are the histological grade, the cancer stage and the myometrial invasion. This gives rise to the question whether there are specific prognosis factors in young women with endometrial cancer. According to the studies of Evans-Metcalf et al [12] and Fahri et al [9], it seems that the frequency of Grade 1 tumors was higher in young women, reaching 90%. Another study [8] reports a myometrial invasion rate that was more than 50% lower in young women (24% vs. 49% in older women). Two studies [12,13] have shown that the association of endometrial adenocarcinoma with ovarian one seems to be more frequent in younger women than older ones (29% vs. 4.6%).

The optimal therapy in young patients with endometrial cancer still remains controversial. The dilemma arises of whether to recommend medical management or definitive surgery.

Definitive surgery is the classic treatment for endometrial cancer. It consists of total hysterectomy and bilateral salpingo-oophorectomy, with a pelvic and aortic lymphadenectomy if required. Curietherapy and radiotherapy are indicated when there is a high risk of recurrence. The young women affected by endometrial cancer are often nulliparous with a past history of infertility and thus are very anxious to preserve their fertility. This constitutes a dilemma for the patients as well as their physicians.

Some authors [14,15] have proposed repeated endometrial curettages or hysteroscopic resection of cancerized polyps; however, most conservative treatments are inspired by the hormone-dependence of endometrial adenocarcinomas. In general, the effect of progestins is considered to be mediated through progesterone receptor (PR), because the response rate to progestins in PR-positive carcinoma was higher (70%) compared with PR-negative tumors (16%) [16,17]. It has recently been shown that they express Gn-RH (Gonadotropin-Releasing Hormone) receptors [18], which implies that progestins and Gn-RH agonists are the most useful medicines in the framework of conservative treatment of endometrial cancer (Stage I, Grade 1).

A case of successful pregnancy after conservative surgery for stage IA endometrial cancer was reported in a 33-year-old woman who was diagnosed with stage IA endometrial cancer and had benefited from conservative surgery with chemotherapy [19]. However, given the risk of recurrence or the development of metastasis and the need for rigorous follow-up, our patient has chosen the definitive surgery.

According to the international literature, it appears that the most important factor for conservative treatment is selecting the "ideal patient" [20]. That is:

- a well-differentiated endometrial carcinoma that does not deeply invade the myometrium,
- absence of suspicious pelvic or pre-aortic nodes.
- absence of synchronous ovarian tumors,
- no contraindications for medical treatment,
- the patient understands and accepts that this is not a standard treatment,
- the patient should show her desire to complete the follow-up protocol.

4 CONCLUSION

The diagnosis of endometrial cancer in young, premenopausal females may present the patient and the physician with question of conservative management or ovarian preservation. Standard treatment for these patients includes hysterectomy with bilateral salpingo-oophorectomy [21]. A conservative treatment for endometrial carcinoma at Stage IA with a low histological grade is possible if a complete pre-therapeutic assessment is achieved and if a rigorous follow-up during and after the treatment is pursued. But, it should be kept in mind that every delay in implementing radical treatment can increase the rate of recurrence or the development of metastasis, which will systematically worsen the prognosis. Radical treatment should be indicated as soon as the desire to carry a pregnancy to term is fulfilled.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest related to this article.

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