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Liposarcoma of the uterine corpus coexisting with preinvasive cervical cancer – a case report

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Case report of isolated liposarcoma of the uterine corpus coexisting with preinvasive cervix cancer in 71-year-old woman, who 41 years ago underwent the enucleation of the uterine corpus myomas. In tumor histogenesis the malignant transformation of fat cells, which might have been previously transferred to myometrium, was taken into consideration. The 8 year long follow-up revealed neither recurrence nor metastases.

Introduction

Sarcomas of the uterus account for 1,7% - 4,3% of all malignant lesions of female genital tract, 1/3 of them are leiomyosarcomas and the rest: endometrial stromal sarcomas and malignant mixed mullerian tumors [2, 6, 8, 10]. Isolated liposarcomas of the uterus are extremely rare [1]. In this paper we describe a case of isolated liposarcoma of the uterine corpus coexisting with preinvasive cervix cancer in 71-year-old woman.

A Case Discription

71-year-old woman has been admitted to the hospital due to vaginal bleeding. She had her first menstruation when she was 16 and last one when she was 36. They were regular, appeared every 28 days, not painful and quite abundant. She had 3 vaginal deliveries. At the age of 29 she underwent appendectomy and at 30 she underwent the enucleation of uterine myomas and cholecystectomy. She also complained of constipation. Laboratory test revealed: blood group 0 Rh+, normal blood morphology and normal urine test values. Ultrasonography revealed a mass stemming from the uterine corpus. It measured 108 x 129 mm and was characteristic of myoma. The adnexa demonstrated no changes. On gynecologic examination, the uterine cervix was smooth, a little bloodshot. The extirpation of the uterus and adnexa has been performed and multiple uterine, peritoneal and omental adhesions have been released. She was discharged from the hospital in a good condition on the 11th day of treatment. Postoperatively she underwent a radiation therapy in the oncology centre. After 8 years of observations (as of February 2006), neither local nor distant metastases are present. The patient is in the good condition and remains disease free. The pathologic finding revealed a sharply cut mass, grey and yellow with soft consistency and polycyclic in shape. It occupied almost the whole uterine corpus (Fig. 1). Microscopic examination, in sections around 5 μm thick (hematoxylin and eosin, Gomori's and PAS stain), revealed polymorphic liposarcoma. Tumor contained different size cells with foamy or vacuolated cytoplasm, which on frozen sections showed intense positive staining for Sudan III. The nuclei of neoplastic cells demonstrated features of macronucleosis with hyperchromasia and

Fig. 1. Cross-section of uterine corpus in the frontal plane with the presence of cut-off tumor.

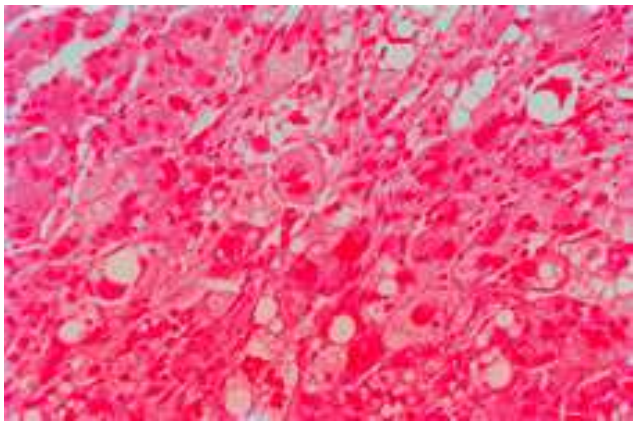

Fig. 2. Microscopic image of the typical polymorphic liposarcoma. (H&E, ×360).

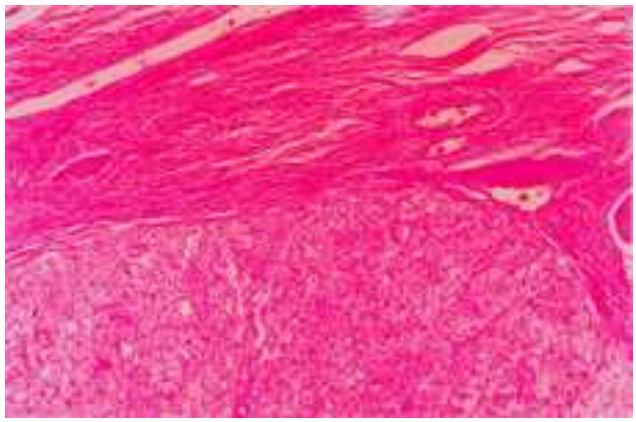

Fig. 3. Sharp border between acapsular neoplasm and myometrium of the uterine corpus. (H&E, ×125).

increased mitotic figures. Some cells were polynucleotic. In spite of distinct malignant histological features (Fig. 2) the tumor was quite well separated from the myometrium of the uterine corpus (Fig. 3). Both epithelial membrane antigen (EMA) and desmin stained negative in tumor cells, although desmin showed immunoreactivity in myocytes, which confirmed the effectiveness of the reaction. Immunohistochemical staining showed positive reaction for vimentin and S-100 protein. Additionally the preinvasive cervix cancer and small para-ovarian serous cysts in the adnexa were present in the material.

Discussion

The routine, selective and immunohistochemical stainings revealed liposarcoma of the uterine corpus and proved against ephitelial neoplasm or myoma with lipidous degeneration. It has been already mentioned, that the described pathology is extremely rare in the uterine corpus (1). In this localization it may occur as a pure form, but more often, it appears as the additional component in malignant mixed mullerian tumor in older women [8, 10]. The liposarcomatous differentiation in mesodermal mullerian tumor has been demonstrated 3 times among 98 examined cases [2]. According to Wheelock et al [10] liposarcomatous component appeared 5 times among 47 cases of malignant mixed mullerian tumor. Günther noted only one case of such differentiation among 60 malignant mesodermal tumors [6]. On the other hand, Eberl et al [4] and Tinkler and Cowie [9] did not observe any case of liposarcoma among 69 and 101 cases of uterine sarcoma. In our material from 1984 to 2002 it was the first case of uterine liposarcoma among 3110 excised uteri (0,032%), which in relation to myomatous uteri amounted to 0,043%. Histogenesis of the tumor is unclear. In the past (41 years ago) our patient underwent uterine corpus myomas enucleation, which resulted in multiple uterine, peritoneal and omental adhesions. Brandfass et all. [3] quote 7 theories, that have been proposed to account for the presence of fat cells in the uterine myometrium, which may next undergo malignant transformation. The theories include malignant transformation of lipomyomas or anaplasia of the fat cells, which were transferred to myometrium during manipulations in female genital organs (the possibility nr 6 according to the authors). We consider that this mechanism may have been present in our case, probably in a person with genetical predisposition (two cancers in one organ). If so, the period of neoplastic transformation would have been very long. In the case of malignant mullerian tumor with the chondro-lipo-myxo-sarcomatous component in 70 year-old woman, presented by Pieczorina [8], the benign tumors of uterine corpus were present for 25 years and finally underwent malignant transformation with distant metastases and lethal outcome. In our case the 8 year-long follow up revealed neither local nor distant changes and the patient remains in a very good condition.

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