

CLINICAL CASE

Endometrial cancer metastases in the region of abdominal muscles and pelvic wall

S. Djurdjević¹, L. Mladenović-Segedi¹, M. Djolai²

¹Department of Obstetrics and Gynaecology, Clinical Center of Novi Sad, Novi Sad; ²Department of Histopathology, Medical School of Novi Sad, Novi Sad, Serbia & Montenegro

Summary

We present a case of surgical removal of solitary metastases in the region of anterior and lateral pelvic wall following primary surgery, pelvic irradiation (external beam-Linac X 6 MV to whole pelvis, followed by intravaginal Ir¹⁹²), and adjuvant chemotherapy (carboplatin / adriamycin) in a patient with endometrial adenocarcinoma, FIGO stage IIIA, performed on 3 consecutive recurrences. All recurrences were histologically well-differentiated. The first of them was in the region of *m. rectus abdominis* and

m. psoas, and was totally removed. The location of the last 2 recurrences occurred approximately at the same site, and, after surgical removal, the patient received 4 cycles of paclitaxel and adjuvant irradiation to the lateral pelvic wall (external beam-Linac X 6 MV) in order to possibly prolong the disease-free interval. The patient is in good general condition with no evidence of disease 36 months following primary surgery.

Key words: endometrial carcinoma, recurrence, surgical treatment

Introduction

Endometrial carcinoma is the most common tumor of the female genital tract, comprising 10% of newly detected cases of all malignancies in women of Western Europe and 6% of the women in the USA [1,2]. It is a disease of postmenopausal women with highest incidence in the 6th decade of life, although 1.5% of the cases occur before the age of 40 years [3]. Almost 75% of endometrial carcinomas are diagnosed in FIGO stage I, whereas about 25% of the women with endometrial carcinoma will die of the disease [4]. Although there is no generally accepted consensus over the primary treatment in initial stages, there is an agreement in carrying out removal of the uterus, ovaries and

tubes, peritoneal washings for cytologic examination and biopsy or selective pelvic lymphadenectomy [2,5]. Postoperative irradiation and/or chemotherapy are planned and based on definite histologic findings and are associated with the advanced disease stages (FIGO IIIA–IV B) [6,7]. However, literature data do not confirm the efficacy of either irradiation or chemotherapy in patients with advanced stages of disease [1].

Case presentation

A 55-year-old lady was admitted to the Department of Obstetrics and Gynaecology with pathologically confirmed grade 2, endometrial carcinoma following diagnostic curettage carried out for abnormal postmenopausal bleeding. At endovaginal ultrasonography (US) of the genitals, the presence of a tumorous infiltration of the myometrium was suspected, whereas a cystic tumor of the left ovary containing also solid component and irregular septa was confirmed. Serum CA 125 tumor marker was increased at 83 mIU/ml (normal up to 35). US inspection of the upper abdominal organs and of paraaortic lymph nodes, chest X-ray, cysto- and rectosigmoidoscopic findings were normal.

Received 24-05-2005; Accepted 09-07-2005

Author and address for correspondence:

Srdjan Djurdjević, MD, PhD
Department of Obstetrics and Gynaecology
Medical School, University of Novi Sad
Branimira Cosica 37
21000 Novi Sad
Serbia & Montenegro
E-mail: winter@ptt.yu

At exploratory laparotomy, approximately 150 ml of abdominal fluid were obtained for cytological evaluation together with inspection and palpation of all intraabdominal organs and serous membranes. The *ex-tempore* histological diagnosis confirmed the malignant nature of the left ovarian cystic tumor, as well as the presence of metastases in the omentum. Extensive hysterectomy (Piver class II) was carried out, followed by bilateral adnexectomy, complete omentectomy, pelvic lymphadenectomy and biopsy of paraaortic lymph nodes. The definite histological report finding confirmed the intraoperatively recognized diagnosis of endometrial carcinoma involving two thirds of the myometrium, with spread of cancer cells to the uterine serosa. The histological presence of carcinoma was confirmed in endocervical glands, left ovary and omentum. The tumor was a moderately differentiated (grade 2) endometrial adenocarcinoma containing atypical cylindrical cells distributed in a shape of papillary adenoid formation and lesser solid component. Peritoneal cytology, lymph nodes and the parametria were negative.

The patient was postoperatively administered 6 cycles of polychemotherapy (carboplatin and adriamycin) in combination with pelvic radiotherapy (external beam to whole pelvis, 40 Gy in 20 fractions over 4 weeks, followed by intravaginal irradiation with Ir-192- 20 Gy in 10 fractions), after which she was put on close follow-up. Eighteen months following surgery, a tumorous mass measuring 53×50 mm in size was detected, located in the region of anterior abdominal wall, right and lateral to the incision, which was also confirmed by US and CT scanning of the small pelvis (Figure 1). On operation, the tumor was located on

the right m. rectus abdominis immediately beneath the fascia and above the peritoneum which was intact and was completely removed. The histopathological examination confirmed metastasis of endometrial adenocarcinoma.

Eight months later, the patient started complaining of pain and edema of her left leg. Repeat US and CT detected a tumorous mass in the left lateral pelvic wall, 70×54 mm in size, compressing the wall of the external iliac artery and vein. In team with a vascular surgeon, the patient was subjected to exploratory laparotomy with incision at the very site of the first laparotomy to visualize the intraabdominal organs. Following detailed inspection, peritoneal washings for cytologic examination and biopsy of the peritoneum at several locations were taken. Except the tumorous recurrence in the left lateral pelvic wall, all other organs and serous membranes in the abdomen looked normal. The whole tumor was completely removed and several stitches were applied in the region of the lesser lesion of the external iliac vein wall to which the tumor had been attached.

Seven months later (33 months following the primary operation), a sharp rise of serum CA125 of more than 400 mlU/ml was recorded. Control MRI and US revealed a large tumorous formation in the left lateral wall of the pelvis in the region of m. psoas and to the left of the common iliac artery and vein, measuring 80×55 mm (Figure 2). The patient was subjected to a new laparotomy. The peritoneum was incised, the sigmoid colon, left ureter, external and common iliac artery and vein were prepared, located and outlined. The tumor was completely removed, with intraoperative blood loss of 1900 ml (Figure 3). Histopathologic examination

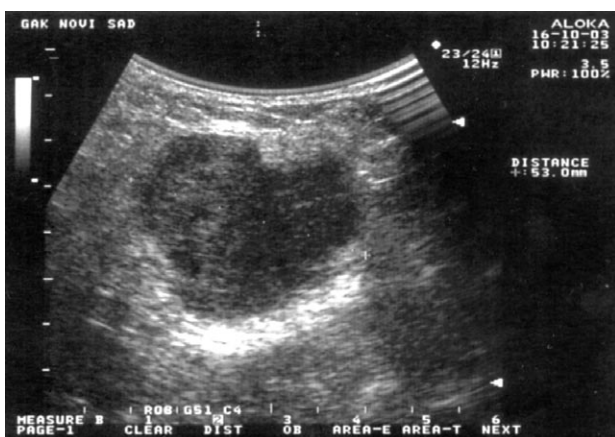


Figure 1. Sonographic appearance of endometrial carcinoma recurrence in the region of m. rectus abdominis.

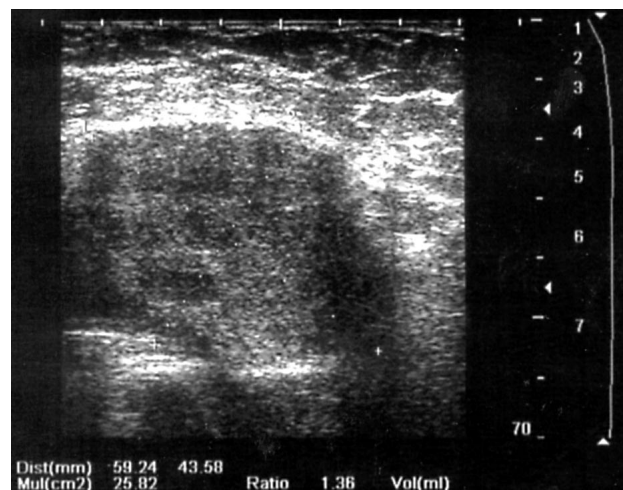


Figure 2. Sonographic appearance of the recurrence in the region of lateral pelvic wall.

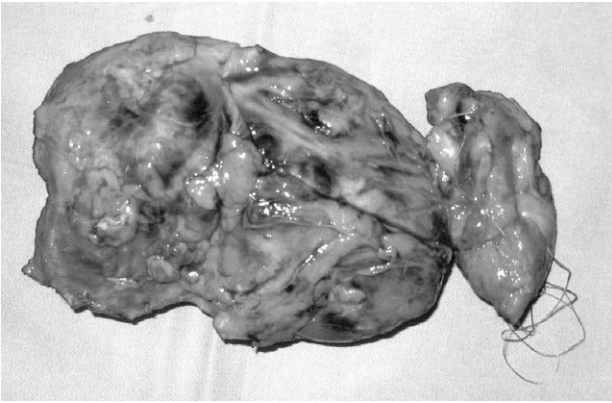


Figure 3. Macroscopic appearance of the excised tumor.

confirmed the presence of endometrial adenocarcinoma in the m. psoas (Figure 4). The patient was discharged on the 10th postoperative day in good general condition. Following surgery, she was administered 4 cycles of chemotherapy (paclitaxel) and external beam radiotherapy with Linac X 6 MV, 40 Gy in 20 fractions over 4 weeks, to the left lateral pelvic wall.

Three years after the first operation, the patient is in good condition, without evidence of disease recurrence.

Discussion

In general, the prognosis of patients with clinical FIGO stages IIIA - IVB endometrial carcinoma has been poor, with 5-year survival ranging from 5 to 60 % [8]. The choice of the therapeutic modality should be planned individually in relation with the spread of disease, presence of distant metastases and

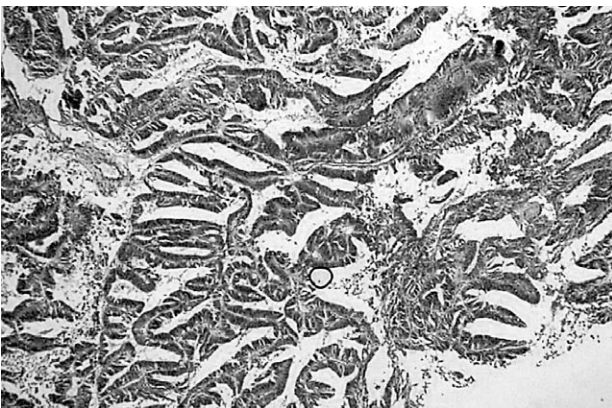


Figure 4. Histopathologic appearance of endometrial carcinoma recurrence in the region of m.psoas (H&E $\times 320$).

general condition of the patient. Hysterectomy with bilateral adnexectomy has been the most common primary therapy in these patients, in order to remove the primary tumor. During this operation, a maximal reduction of the tumor is performed, similar to the procedure performed in the advanced stages of ovarian carcinoma, with eventual interventions in other intraabdominal organs [9]. It is necessary to make a proper evaluation of the nodal status either by regional or complete pelvic and paraaortic lymphadenectomy, or selective biopsy of the lymph nodes at typical sites for histological evaluation. Adjuvant therapy comprises chemo- and radiotherapy in different combinations. Radiotherapy decreases the risk of recurrences in the pelvis and chemotherapy positively affects the overall survival rate [10]. Irrespective of the performed therapy, the risk for recurrence within the first 2 years is about 80 % [1]. Bones, lungs and liver are the sites of most frequently recorded distant metastases. There were also several reports of brain metastases. The choice of treatment in these cases directly depends on the location of the recurrence or whether it is solitary or multifocal [11]. Chemo- and hormonotherapy are administered in the treatment of lung metastases with rather limited success [12]. Radical and exenterative surgery are limited to rare cases of recurrences located in the central pelvis with no signs of dissemination to distant sites. In the treatment of vaginal metastases, different surgical procedures are used; radiotherapy either alone or in combination with surgery is also used [6,13]. Skin metastases of endometrial carcinoma are extremely rare with an incidence of 1-5 % of all cases, whereas there is only a limited number of reports on implantation metastases on the scar of previous laparotomy. The occurrence of this kind of metastases is associated with hematogenic and lymphogenic ways of spread of malignant cells, whereas postoperative radiotherapy does not prevent their occurrence. The interval between primary operation and the occurrence of implantation metastases varies from several months to 7 years and repeated surgical excision is the most commonly used procedure [14].

In this report we presented a patient who underwent primary surgery for stage IIIA endometrial carcinoma. Eighteen months following primary surgery and adjuvant radio- and chemotherapy the disease progressed with distant metastases first in the region of abdominal muscles and then in the pelvic wall. In all cases the lesions were solitary and well-differentiated, located in the m. rectus abdominis and psoas which were completely removed in all 3 occasions. The 2 last recurrences were located approximately at the same site in the left lateral pelvic wall, and since 2.5 years

had passed from the last administered radio- and chemotherapy, we repeated adjuvant external irradiation in combination with 4 cycles of paclitaxel.

Although no controlled studies justifying this approach have been reported in the literature, a positive psychological effect in such patients and prolongation of the disease-free interval seem achievable.

References

1. Gehrig PA, Morris DE, Van Le L. Uterine serous carcinoma: a comparison of therapy for advanced-stage disease. *Int J Gynecol Cancer* 2004; 14: 515-520.
2. Rajovic J, Mladenovic-Segeđi Lj, Segeđi D, Tesic M. Endometrial carcinoma - what are the protocols for? *Med Pregl* 2004; 57: 397-400 (in Serbian with English abstract).
3. Ben-Arie A, Perlman S, Hazan Y, Solomon LA, Edwards C, Kaplan AL. High-risk endometrial cancer in young indigent women. *Int J Gynecol Cancer* 2004; 14: 927-930.
4. NHS Executive. Guidance on Commissioning Cancer Services. Improving Outcomes in Gynaecological Cancers. The Manual. United Kingdom, 1999.
5. Alexander-Sefre F, Singh N, Ayhan A, Thomas JM, Jacobs JJ. Assessment of the depth of myometrial invasion in stage I endometrioid endometrial cancer using pancytokeratin immunohistochemistry. *Int J Gynecol Cancer* 2004; 14: 665-672.
6. Hogberg T, Fredstorp-Lidebring M, Alm P et al. On behalf of the Southern Swedish Gynecologic Oncology Group. A prospective population-based management program including primary surgery and postoperative risk assessment by means of DNA ploidy and histopathology. Adjuvant radiotherapy is not necessary for the majority of patients with FIGO stage I-II endometrial cancer. *Int J Gynecol Cancer* 2004; 14: 437-450.
7. Aalders JG, Abeler V, Kolstad P. Recurrent adenocarcinoma of the endometrium: a clinical and histopathological study of 379 patients. *Gynecol Oncol* 1984; 17: 85-103.
8. Creasman W, Odicino F, Maisonneuve P et al. Carcinoma of the corpus uteri. *J Epidemiol Biostat* 1998; 3: 35-61.
9. Rahaman J, Dottino P, Jennings TS, Holland J, Cohen CJ. The second-look operation improves survival in suboptimally debulked stage III ovarian cancer patients. *Int J Gynecol Cancer* 2005; 15: 19-25.
10. Craighead PS, Sait K, Stuart GC et al. Management of aggressive histologic variants of endometrial carcinoma at the Tom Baker Cancer Center between 1984 and 1994. *Gynecol Oncol* 2000; 77: 248-253.
11. Tangjitgamol S, Levenback CF, Beller U, Kavanagh JJ. Role of surgical resection for lung, liver, and central nervous system metastases in patients with gynecological cancer: a literature review. *Int J Gynecol Cancer* 2004; 14: 399-422.
12. Otsuka I, Ono I, Akamatsu H, Sunamori M, Aso T. Pulmonary metastasis from endometrial carcinoma. *Int J Gynecol Cancer* 2002; 12: 208-213.
13. Domenech-Garcia RV, Inesta JM, Asins E, Aznar I, Llixiona J. Prognostic factors in endometrial carcinoma: risk groups and adjuvant radiotherapy. *Eur J Gynecol Oncol* 1997; 18: 164-169.
14. Khalil AM, Chammas MF, Kaspar HJ, Shamseddine AI, Seoud MA. Case report: endometrial cancer implanting in the laparotomy scar. *Eur J Gynecol Oncol* 1988; 19: 408-409.