

# Debulking surgery for metastatic endometrial cancer — a case report and literature review

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## ABSTRACT

Although endometrial cancer is usually diagnosed in early stages of the disease due to the frequent association of worrisome symptoms such as postmenopausal bleeding, in certain cases the patients are diagnosed when metastatic lesions are already present. In such cases, a multidisciplinary approach is needed in order to achieve a maximum benefit in terms of survival. The aim of the current paper is to report a 62 year old patient diagnosed with endometrial cancer with bone and pulmonary metastases in whom a complex oncological and surgical therapeutic strategy was performed with good results.

**Keywords:** endometrial cancer, bone metastases, pulmonary metastases

## INTRODUCTION

Endometrial cancer remains one of the most commonly encountered malignancies in postmenopausal women, which is usually associated with worrisome features such as postmenopausal vaginal bleedings [1]. However, in certain cases this sign might not be encountered due to the presence of local modifications such as uterine cervix stenoses; therefore, in such cases the diagnosis is established only later on during the evolution of the disease, when disseminated, metastatic lesions are already present. When it comes to the most commonly encountered patterns of spread, they are represented by direct spread, hematogenous, lymphatic and intraperitoneal pattern; as for the hematogenous pattern of spread, the most commonly involved organs are represented by liver and lung [2-4]. The aim of

the current paper is to report the case of a 62 year old patient diagnosed with endometrial cancer with pulmonary and bone metastases and to underline the importance of multimodal treatment.

## CASE REPORT

The 62 year old previous healthy patient was investigated for diffuse pelvic pain, hematuria and constipation. At the gynecological examination a large uterine tumor invading the upper two thirds of the vagina and the urethra was found; meanwhile a cervical stenosis was seen in association with hematometra, explaining therefore the absence of postmenopausal vaginal bleeding. The patient was initially submitted to a biopsy from the area of invasion of the vaginal wall demonstrating the presence of a moderately differentiated endometroid endo-

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metrial carcinoma. Afterwards a whole body computed tomography was performed which demonstrated the presence of two pulmonary nodules measuring 13 mm and respectively 15 mm as well as the presence of three suspect lesions at the level of the sacrum. The patient was considered to have a metastatic to bones and lungs endometrial cancer and therefore was submitted to six cycles of taxanes and platinum based chemotherapy. After ending the chemotherapeutic treatment the patient was submitted to another computed tomography which revealed the necrotized aspect of the bone lesions as well as the slight diminish of the dimensions of the pulmonary nodules and of the primary uterine tumor which, at that moment, seemed not to invade anymore the upper part of the vagina. In this respect, the patient was further submitted to brachytherapy for the primary tumor and to stereotaxic radiotherapy for the pulmonary nodules, these local therapies being associated with systemic hormonal therapy. At one year follow up the pulmonary nodules were no longer visible at the chest computed tomography while the bone lesions continued to appear as necrotized areas and the uterine tumor presented as a small tumoral area at the level of the uterine fundus. Due to the favorable systemic response of the patient, we considered that surgery for the primary tumor could be taken in consideration; therefore the patient was submitted to a total hysterectomy with bilateral adnexectomy in association with pelvic lymph node dissection with a simple postoperative outcome. The histopathological report demonstrated the persistence of a small tumoral area of endometrioid endometrial cancer with negative lymph nodes and no signs of tumoral infiltration at the level of the vagina.

## DISCUSSIONS

Although the hematogenous pattern of spread plays a crucial role in advanced stage endometrial cancer, bone metastases are rarely encountered during the course of the disease; moreover bone metastases at the time of presentation have been reported in less than 0,1% of cases [5]. As expected, most often bone metastases are found in the close proximity of the uterus, at the level of the pelvic bones and spine [4]. One of the largest studies conducted on the issue of bone metastases from endometrial cancer was published by Kehoe et al in 2010; the study included 21 cases diagnosed with bone metastases from endometrial cancer between 1990-2007; as expected, the most commonly encountered sites for bone metastases were represented by pelvic bones and spine. When it comes to the long-term

outcomes, a median overall survival of 10 months was reported in the above mentioned study; however, it seems that a significant difference in terms of survival is to be expected in cases diagnosed with synchronous bone metastases when compared to those diagnosed with methacton disease. Therefore, while in cases in which synchronous bone metastases are found from the initial time of diagnostic the overall survival might reach 20 months, cases in which distant metastases are found under the form of late recurrences, the overall estimated survival rarely surpass 10 months [5]. Another significant prognostic factor is represented by the histopathological subtype of the tumor; as expected, patients with type II endometrial carcinoma exhibit a poorer outcome when compared to cases diagnosed with type I endometrial carcinoma [5].

In this respect, we could consider that our patient had a favorable course of the disease due to the fact that she was diagnosed with synchronous bone metastases originating from a type I endometrioid endometrial cancer.

When it comes to the most efficient therapeutic strategy in such cases, different protocols have been proposed, consisting of chemotherapy alone or in association with radiotherapy or hormonal therapy with megestrol [5].

An interesting study which was conducted on the issue of the role of surgery in patients with extra-peritoneal metastases from endometrial cancer has been published by Guo et al. in 2020; the study included 730 patients with such lesions; among these cases solitary pulmonary tumors were reported in 50,96% of cases while other 26,85% of cases presented multiple lesions including lung metastases. The authors demonstrated the fact that in the absence of brain metastases, surgery might be taken in consideration with promising results; as expected the best results in terms of survival were reported in cases diagnosed with solitary pulmonary metastases followed by cases diagnosed with pulmonary and bone metastases [7].

## CONCLUSIONS

Although patients diagnosed with metastatic uterine cancer have been traditionally considered as candidates for palliative treatment and the lifespan is very low, in certain cases multimodal treatment can be successfully administrated in order to offer a good control of the primary tumor but also for distant metastases. However, in such cases the concept of personalized medicine is extremely important in order to tailor the most appropriate therapeutic strategy.

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