A rare case of umbilical and vaginal metastasis from endometrial cancer - review of the literature

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Summary

Introduction: Metastases from primary endometrial cancer to the umbilicus are extremely rare. This unusual site of metastases has been described as Sister Joseph's nodule. *Material and Method:* We present a case of a 73-year-old Caucasian woman with a BMI of 30, type II diabetes mellitus, hypertension, and umbilical and vaginal metastasis of endometroid endometrial adenocarcinoma (FIGO Stage IIIa, G2). Total abdominal hysterectomy and bilateral salpingo-oophorectomy by Pfannenstiel dissection, had been performed eight months before. The size of the umbilical mass was 2 x 2 cm. A second laparotomy including full recession of the umbilical ring, omentectomy, bilateral inguinal lymph nodes and excision of the upper one-third of the vagina was performed. Histological diagnosis revealed metastases of the same origin with her primary disease. *Conclusion:* The exact mechanism of implantation of cancer cells at the site of the umbilical ring is still unclear. Perhaps malignant cells penetrated the thickness of the uterine wall and spread intraperitoneally to reach the umbilical ring. The exfoliation of cells from the primary tumor via the fallopian tubes could be another possible explanation. Unfortunately, the presence of umbilical metastasis is a poor prognostic feature and sign of advanced neoplastic disease. The survival rate of these patients is influenced by the type of treatment and time of the diagnosis.

Key words: Endometrial carcinoma; Sister Mary Joseph nodule; Umbilical metastases.

Introduction

Endometrial carcinoma is the most common malignancy of the female tract. About 2% to 3% of women will develop endometrial cancer during their lifetime [1]. The median age at diagnosis is the sixth decade, and only 20-25% will be diagnosed premenopausally [1]. Endometrial adenocarcinoma invades and spreads locally, but can also have lymphatic or hematogenous spread. Metastases from malignancies of the female tract and especially from primary endometrial cancer to the umbilicus are extremely rare. This unusual site of metastases has been described in the past only in a few cases in the English literature and it has been described as Sister Joseph's nodule [2]. Only 2% of these rare metastases are of endometrial origin. In case of an umbilical malignant tumor, 75% correspond to a Sister Joseph's nodule. This secondary localization of the malignancy could appear before, during or after the initial diagnosis of the primary tumor. We present a rare case and to the best of our knowledge this is the first one in our country.

Case Report

We present a case of a 73-year-old Caucasian woman with a body mass index (BMI) of 30, type II diabetes and hypertension, who was referred to our department with umbilical and vaginal metastasis of endometroid endometrial adenocarcinoma (FIGO Stage IIIa, G2). The initial diagnosis, staging and surgical treatment with total abdominal hysterectomy and bilateral salpingo-oophorectomy by Pfannenstiel dissection had been performed eight months before. Pelvic lymphadenectomy was not performed at that time. Peritoneal washings and vaginal and parametrial resection margins were free of disease.

On admission, the size of the umbilical mass was 2 x 2 cm and occupied the whole umbilical ring (Figures 1 and 2). There was also an exophytic vaginal recurrence of 1.5 x 2 cm. Magnetic resonance imaging abdominal scan revealed bilateral enlarged inguinal lymph nodes. CA 19-9 serum level was 198 IU/ml and CA 125 was 32 IU/ml. A second laparotomy including full recession of the umbilical ring, omentectomy, bilateral inguinal lymph nodes and upper one-third of the vagina was performed. Histological diagnosis revealed metastases of the same origin with her primary disease. She underwent external beam radiotherapy of 20 Gy in four daily fractions of 5 Gy over one week. The post treatment period was uneventful.

Discussion

It is already known that endometrial cancer spreads most commonly by direct extension to adjacent structures and also by transtubal passage of exfoliated cells, lymphatic and hematogenous dissemination [1]. The exact mechanism of implantation of cancer cells at the site of the umbilical ring is still unclear. Perhaps malignant cells penetrate the thickness of the uterine wall and spread intraperitonealy to reach the umbilical ring. The exfoliation of cells from the primary tumor via the fallopian tubes could be another possible mechanism [3]. Although these seem to be the most probable mechanisms of spread, other mechanisms must also play some role, because positive peritoneal washings have been reported in patients who have had a prior tubal ligation [3, 4].

Unfortunately, the presence of umbilical metastasis is a poor prognostic feature and sign of advanced neoplastic disease. The survival rate of these patients is influenced by the type of treatment and time of the diagnosis. Delay

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Fig. 1

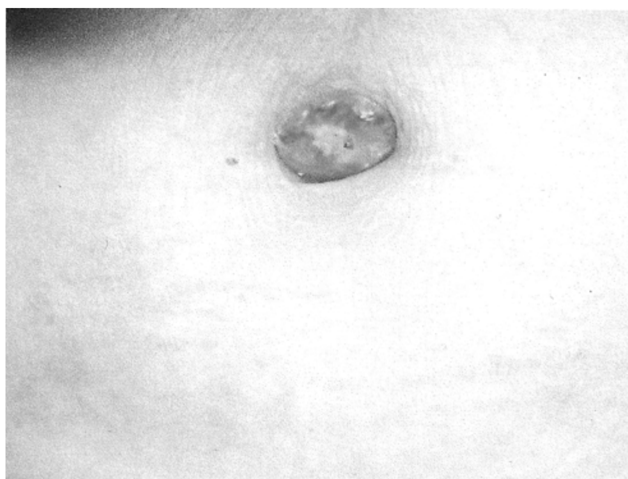

Fig. 2

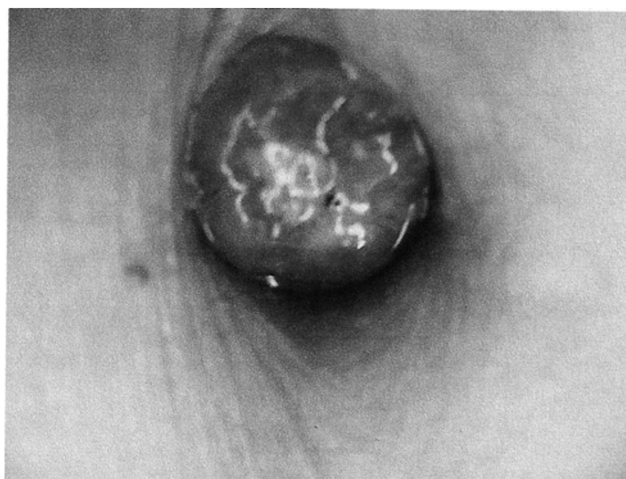

Figure 1. — Umbilical metastasis from endometrial cancer.
Figure 2. — Umbilical ulceration due to metastatic disease.

of the diagnosis or treatment could lead to poor prognosis ranging between two and 11 months [3, 5]. Palliative treatment is not an option for these cases. The combination of adjuvant therapy and surgical reduction of the tumor seems to offer a better survival rate (up to 21 months) compared to surgery alone (7.4 months) [2, 5, 6]. Multidisciplinary teams and further studies are needed in order to offer the best choice to women.

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