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Case Presentation

Widespread cutaneous metastasis from ovarian serous adenocarcinoma

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Abstract

Cutaneous metastasis can be rarely first manifestation of internal cancers; these usually develop with advanced stage malignancies. Cutaneous metastasis of ovarian cancer is rare and the majority of are seen around the pelvic region compatible with the localization of the primary ovarian tumor. Herein, we report a patient with ovarian cancer with widespread and distant cutaneous metastases showing multiple nodules and ulcers.

Keywords: Cutaneous metastasis, ovarian adenocarcinoma

Introduction

Cutaneous metastasis (CM) is generally seen with late stage malignancies, but it can rarely be the first sign of a primary tumor [1]. The frequency of CM is about 0.7-10% in all malignancies. CM from ovarian cancer is quite rare and the most of the metastatic tumors occur on the abdominal wall near the primary ovarian tumor [2,3]. Herein, we report a patient with ovarian cancer with distant CM demonstrating multiple lesions with variable size and clinical features.

Case synopsis

A 71-year-old woman presented to our clinic with pruritus and erythematous swellings with discharge on the trunk and breasts. On physical examination, there were multiple discrete erythematous nodules, diameters ranging 0.5 cm to 1.5 cm, on the anterior side of the body, axillary regions, left ear, and nape of the neck. Ulcers with discharge were present on the left breast (Figure 1a, 1b).



Figure 1 (a) Multiple discrete erythematous nodules, diameters ranging 0.5 cm to 1.5 cm, on the anterior side of the body, and left ear and ulcers with discharge on the left breast **(b)** Close-up view of the nodular lesions on the anterior side of the body

Nine years prior, total abdominal hysterectomy/bilateral salpingo-oophorectomy, omentectomy, lymphadenectomy, and sigmoid colon resection had been performed because of a pelvic mass and the patient had been diagnosed with ovarian serous adenocarcinoma. The patient had taken 6 treatments of a cisplatin-paclitaxel combination as an adjuvant therapy. Two years after the diagnosis, several lymph nodes in the left supraclavicular and left axillary areas had appeared and were compatible the metastasis of ovarian serous adenocarcinoma. A complete response was obtained after a series of the carboplatin-paclitaxel therapy. However, 4 years prior to presentation to our clinic, abdominal lymph nodes were detected in a PET/CT scan done because of increased levels of carbonhydrate antigen (Ca)-125 and the patient had been treated again with carboplatin-paclitaxel chemotherapy. Since high levels of Ca-125 remained, the patient was considered resistant to platin and subsequently received 4 cycles of epirubicin-cyclophosphamide. Oral capecitabine therapy had been initiated because of the progressive disease. After 10 cycles of capesitabine therapy, the skin lesions appeared.

A punch biopsy was obtained from the nodules. Histopathological examination showed a tumor with psammoma bodies in the dermis. Immunohistochemically, tumor cells were positive for CK7, WT1, ER, and PR and negative for CK20 (Figure 2a, 2b, 2c). The patient was diagnosed with metastatic ovarian serous carcinoma with these findings and gemcitabine therapy was planned in the oncology department.

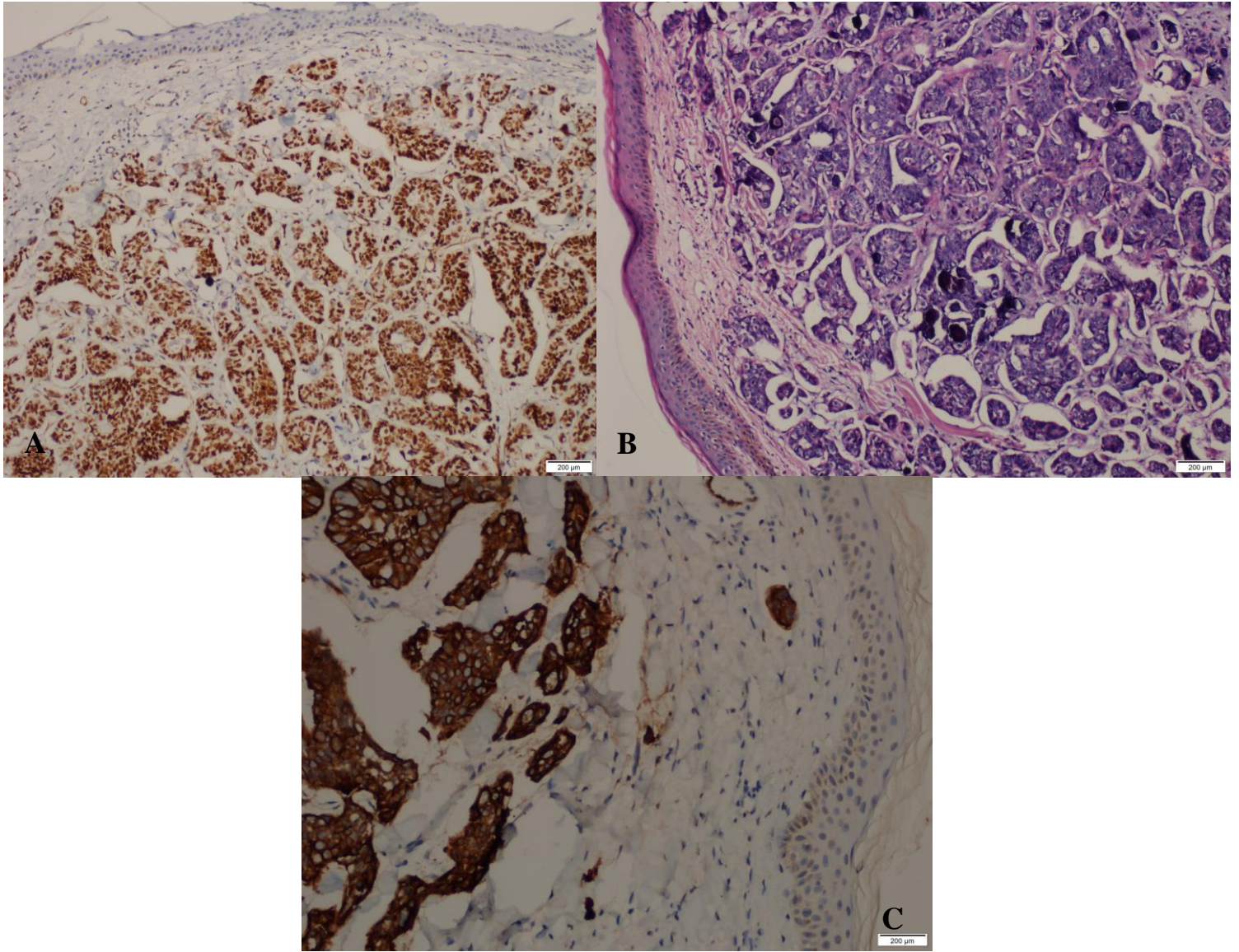


Figure 2 (a) Nuclear WT1 positivity in metastatic tumor cells (Original magnification x100) (b) Metastatic serous carcinoma with Psammoma bodies and high grade nuclear morphology (H&E, original magnification x100) (c) Cytoplasmic Cytokeratin 7 positivity in tumor cells (Original magnification x200)

Discussion

Cutaneous metastasis (CM) of internal cancers is rare and the frequency depends on the incidence of the primary tumor, tumor grade, age, and gender [2,3]. CM can occur with vascular invasion, lymphatic invasion, direct invasion to the adjacent tissue, or iatrogenic implantation. The most common metastatic cancers into the skin are breast cancer and malignant melanoma in women, and malignant melanoma and lung cancer in men. Clinically, CM is characterized by non-tender, mobile, firm, and erythematous nodules and sometimes ulcers. The differential diagnosis of CM includes cysts, lipomas, adnexal tumors, and fibromas [1].

Metastasis of gynecological cancers usually occurs in the pelvic organs and lymph nodes; distant metastases develop in the lungs, liver, bone, and central nervous system. Unfortunately, epithelial ovarian cancers are diagnosed late in most patients with metastasis related to intraperitoneal spread. In addition, lymphatic and hematologic spread can be observed in ovarian cancers [4,5].

Although distant metastasis of ovarian cancer is not rare, CM of ovarian cancer is rare. The majority of CM are subcutaneous nodules seen near the abdominal wall [6]. Cormio *et al.* have reported 67 metastatic regions in 50 patients with ovarian cancer. Thirteen of them (8%) had distant metastasis concurrently to the original diagnosis, whereas 37 (22%) had distant metastasis during the recurrence. The most common region of metastasis has been noted to be liver [7]. In another study, 25 extra-abdominal metastatic regions have been evaluated in 20 patients with ovarian cancer. The lung was found to be the most common metastatic organ. CM has been observed 6 of 25 metastatic regions [8].

In the histopathological analysis of cutaneous metastasis of ovarian cancers, psammoma bodies are distinctive [1]. Histopathological and immunohistochemical features of our patient were also characteristic for cutaneous metastasis of serous ovarian cancer.

Treatment of CM includes treatment of primary malignancy and cutaneous lesions. Chemotherapy, immunotherapy, radiation therapy, excision, and intralesional therapy can be used in the treatment of metastatic disease. The factors affecting treatment decisions include the ability to carry out daily functions, cosmetic problems, pain, hemorrhage, and infections [1]. We plan gemcitabine therapy in our patient because of the progressive course.

Although the course of the disease depends on the underlying primary malignancy and treatment response, CM is an indicator of advanced stage disease and short life expectancy. Cormio *et al.* have reported mean survival time of the ovarian cancer patients with CM as 4 months (ranging 2 to 65 months) [9]. In another study, mean survival time of 20 ovarian cancer patients was reported to be 11 months after extra-abdominal metastasis [8].

In conclusion, CM is usually seen in late stage internal malignancies and indicates a poor prognosis. Physicians should remember that CM may not be close to the location of the primary tumor.

References

1. Davis D, Pellowski D. Cutaneous Metastases. In: Dermatology. 3rd ed, Bologna JL, Jorizzo JL, Rapini RP, (eds), Elsevier, Philadelphia 2012 Vol. 2 p. 2049-2055.
2. Tanriverdi O, Meydan N, Barutca S, Kadikoylu G, Sargin G, Tataroglu C, Culhaci N. Cutaneous Metastasis of Gallbladder Adenocarcinoma in a Patient with Chronic Lymphocytic Leukemia: A Case Report and Review of the Literature. *Ann Dermatol.* 2013 Feb;25(1):99-103. [PMID:23467457]
3. Zindancı I, Can B, Zemheri E, Kavala M. Two Cases of Breast Cancer Presented with Skin Metastasis as First Signs. *Turkderm.* 2006;40(B):31-3.
4. Samaila MO, Adesiyun AG, Waziri GD, Koledade KA, Kolawole AO. Cutaneous umbilical metastases in post-menopausal females with gynaecological malignancies. *J Turk Ger Gynecol Assoc.* 2012 Sep 1;13(3):204-7. [PMID: 24592039]
5. Achimaş-Cadariu P, Vlad C, Fetica B, Zgaia A, Cainap C. Unusual skin metastasis in a patient with recurrent micropapillary serous ovarian carcinoma - a case report and review of the literature. *Clujul Med.* 2015;88(2):237-40. [PMID: 26528077]
6. Kim MK, Kim SH, Lee YY, Choi CH, Kim TJ, Lee JW, Lee JH, Bae DS, Kim BG. Metastatic skin lesions on lower extremities in a patient with recurrent serous papillary ovarian carcinoma: case report and literature review. *Cancer Res Treat.* 2012 Jun;44(2):142-5. [PMID: 22802753]
7. Cormio G, Rossi C, Cazzolla A, Resta L, Loverro G, Greco P, Selvaggi L. Distant metastases in ovarian carcinoma. *Int J Gynecol Cancer.* 2003 Mar-Apr;13(2):125-9. [PMID: 12657111]
8. Cheng B, Lu W, Xiaoyun W, YaXia C, Xie X. Extra-abdominal metastases from epithelial ovarian carcinoma: an analysis of 20 cases. *Int J Gynecol Cancer.* 2009 May;19(4):611-4. [PMID: 19509558]
9. Cormio G, Capotorto M, Di Vagno G, Cazzolla A, Carriero C, Selvaggi L. Skin metastases in ovarian carcinoma: a report of nine cases and a review of the literature. *Gynecol Oncol.* 2003 Sep;90(3):682-5. [PMID: 13678747]