

Carcinoma of the Ovary Presenting as Cutaneous Metastases

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Abstract

Introduction: Cutaneous metastasis is common from malignancies of the genitourinary system and occasionally from the digestive system. Cutaneous metastases, due to ovarian carcinoma as a presenting feature, being diagnosed on cytology, are uncommonly reported. **Case Report:** A 70-year-old lady presented with a cutaneous nodule and progressive abdominal distension. Investigations for metastatic nodule showed it to be a lesion from the ovary. **Discussion:** Carcinoma ovary is often diagnosed when patients present with ascites and the association with a parietal wall deposit is uncommon. The occurrence of a parietal wall nodule when the ascites is negative for malignant cells is not previously documented. **Conclusion:** We discuss literature of the malignancies that present with a parietal wall metastases and the management of ovarian carcinoma.

Keywords

Carcinoma Ovary, Cutaneous Nodule, Cytology

1. Introduction

Skin metastases occur in 0.6% - 10.4% of all patients with cancer and represent 2% of all skin tumors. Women with skin metastases have the following distribution in decreasing order of frequency of primary malignancies: breast, ovary, oral cavity, lung, and large intestine. In men, the distribution is as follows: lung, large intestine, oral cavity, kidney, breast, oesophagus, pancreas, stomach, and liver. A wide morphologic spectrum of clinical appearances has been described in cutaneous metastases. This variable clinical morphology included nodules, papules, plaques, tumors, and ulcers. We present our patient who presented with ascites and a cutaneous nodule due to an ovarian malignancy.

2. Case Report

A 70-year-old lady, presented with complaints of swelling on the left flank and abdominal distension that was progressive over 6 months. Examination revealed a 2 × 2 cm firm swelling on the left flank on the parietal wall. Patient had ascites and was dyspnoic. Investigations done showed a normal blood profile, upper and lower gastro intestinal endoscopy was normal. CT of the abdomen showed massive ascites with peritoneum, omental nodularity, and enlarged left lobe of an irregular coarse nodular liver and a thin rim of fluid with in endometrial cavity. Patient had bilateral minimal pleural effusion and spondylosis of L5 vertebra with L1 wedge compression fracture. Ascitic fluid was negative for malignancy and acid fast bacilli, ADA was 11.71 U/L, LDH was 378 U/L, and protein was 5.9 gms/dl. A clinical gynaecological examination was normal. CA-125 was 2330.60 u/ml (N 0 - 35 units/ml). PET Scan done showed ill defined soft tissue density lesion in the parametrium—right adenexa abutting the anterior wall of the rectum and the uterus with right ovary could not be visualized and a nodular soft tissue density lesion in the left anterior lower abdominal wall (**Figure 1**). A FNAC from the parietal wall nodule was positive for metastatic carcinomatous deposit (**Figure 2**).

A diagnosis of carcinoma of the ovary-stage IV was made and patient was referred to the oncologist for chemotherapy with taxanes and cisplatin. The patient condition

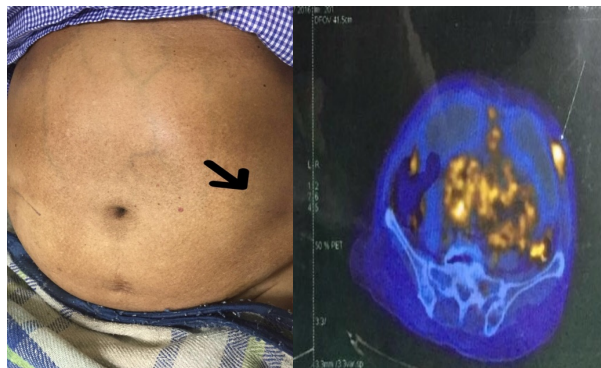


Figure 1. Shows the parietal wall nodule and the PET scan of the abdomen.

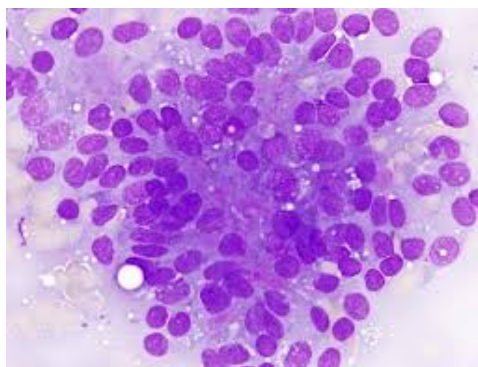


Figure 2. Cytology of the parietal wall nodule showing malignant cells.

deteriorated in two weeks and was unable to withstand the suggested chemotherapy.

3. Discussion

Cutaneous metastasis from an ovarian tumor is a relatively unusual presentation in clinical practice. Distant metastatic deposit to skin is uncommon compared with organs such as liver, lungs, bones. Almost 9% of internal cancers may have parietal metastasis and in about 0.5% - 1% it is the presenting feature [1] [2].

Cutaneous metastases are often from the breast, lungs [3] [4] [5] [6], colon, stomach, upper aero digestive tract, uterus, and kidney. Most cases presenting as cutaneous nodule have peri umbilical nodule (Sister Mary Joseph's). Cutaneous metastases usually presents as solitary/multiple painless, firm to hard nodule, which may be skin colored or blue brown, reddish purple, morphia like sclerotic form [7] [8] [9] [10]. The most common sites affected are skin in vicinity of the affected organ, umbilical (Sister Mary Joseph's nodule), recent operated site, laparoscopic port site, or previously tapped site. Cutaneous metastasis occurs as the result of lymphatic/hematogenous dissemination of tumor. Genitourinary primaries are known to metastasize to the parietal wall from kidney, bladder, prostate and testis. Metastasis to the skeletal muscle is however uncommon and it attributed to muscle movement and destruction by turbulence The dermatologist often see these patients and in the background of a known malignancy there is a need for a high index of suspicion as they account for only 1% of lesions. The relative frequency of skin metastasis correlates with the type of primary cancer, which occurs in each sex. For instance, lung and breast carcinomas are the most common primaries that send skin metastasis in men and women, respectively [11]. Patient with solitary cutaneous metastasis without other evidence of dissemination may have a better survival. Cutaneous disease is usually indicative of poor prognosis and is often a preterminal event

Ovarian carcinoma is the fifth most commonly diagnosed cancer among women in the world where whites are at higher risk compared to the black and Hispanic [12]. It occurs in 17% of Indian women. The overall survival rate is less than 50 years. High mortality in this carcinoma is because nearly 75% of women present with the advanced disease. Incidence of ovarian carcinoma among Indian women was 9.5/100,000 female in 2012. And there was a significant decrease from 2003 to 2012 was it was 12.5/10,000 female, and the mortality had decreased from 9.1 - 8.1/10,000 female during the period of 2003-2012. A cohort study found a relation between diary consumers, red meat and processed meat consumers with ovarian carcinoma. BRCA 1 and 2 gene, obesity also contribute.

The symptoms of ovarian carcinoma are non specific like abdominal pain , bloating , altered bowel habits (with episodes of constipation and loose stools), nausea vomiting, abdominal distention, mass/swelling in the abdomen, loss of weight, loss of appetite, early satiety, back pain, menstrual irregularities in ovulating women, and post menopausal bleeding.

Patients present with locally advanced disease in pelvis, with contagious extension to

the uterus, fallopian tubes, colon, rectum. Ovarian malignancies are often associated with ascitis and one third have pleural effusion. Parietal wall metastasis, enlarged and nodular liver and lymph nodal masses may also be the presentation.

Ultrasound is the initial investigation of choice and CA 125 is often elevated. Others tumour markers include CA19-9, CA 72-4, CA-15-3, fibroblast growth factor, haemoglobin-alpha. Spiral CT is accurate in the detection of peritoneal metastasis from ovarian carcinoma although sensitivity is reduced in pt with tumor implant 1 cm or smaller [13].

Surgery is the initial treatment of choice for ovarian carcinoma, provided patients are medically fit. Chemotherapy can be given to the patient who are not fit for surgery and can be considered later for surgery [14]. The aim of the surgery is to confirm the diagnosis, define the extent of disease, and resect all visible tumors. The role of cytoreduction was demonstrated by Griffiths in 1975 and has been confirmed by many others. In most cases, surgery should be followed by chemotherapy with paclitaxel, docetaxel and carboplatin. Gemcitabine and bevacizumab are also effective in platinum sensitive recurrence [15] [16]. Olaparib 400 mg PO BID continuously may be used as monotherapy for advanced ovarian cancer with deleterious or suspected deleterious germ line *BRCA* mutations (as detected by an FDA-approved test, BRACAnalysis CDx™) in patients who have been treated with three or more prior lines of chemotherapy [17] [18]. Hormonal therapy with tamoxifen and letrozole may be considered for patients who have asymptomatic recurrence or who require a break from regular chemotherapy if they are not tolerating treatment well. Radiotherapy is not very useful in ovarian carcinoma.

4. Conclusion

Cutaneous metastases as a presenting feature of an internal malignancy are uncommon. Their diagnosis by cytology is useful in identifying obscure lesions that are not commonly encountered.

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