



Reviews Of Progress

CASE REPORT - UMBILICAL METASTATIC LESION FROM ENDOMETRIOID OVARIAN CARCINOMA

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ABSTRACT

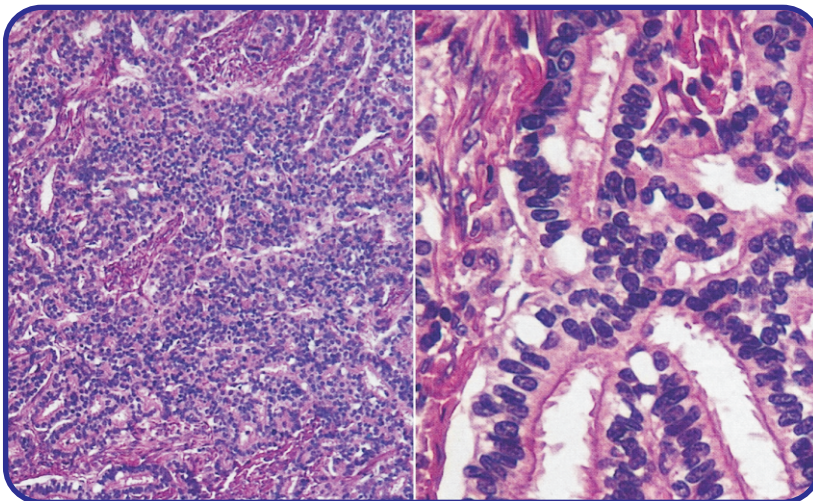
Skin metastasis from endometrioid ovarian carcinomas is a rare condition and conveys a poor prognosis. Endometrioid ovarian carcinomas comprise about 10-25% of all the primary ovarian carcinoma [1]. To our knowledge an umbilical metastatic lesion from endometrioid ovarian carcinoma mimicking an incarcerated umbilical hernia has not been reported yet and is a very rare condition. We present a case of umbilical hernia to the general surgeons due to the

abdominal pain and distention since past 1 month which worsened for the past 2 weeks with bloody and foul smelling discharge from her umbilical region. This was clinically diagnosed as an incarcerated umbilical hernia which was then operated and the specimen proof to be a metastatic lesion from endometrioid ovarian carcinoma.

Key words: endometrioid ovarian carcinomas, umbilical hernia.

CASE REPORT:

A 53 year old Indian lady came to our surgical clinic with the complaint of abdominal pain and distention since past 1 month which worsened for the past 2 weeks with bloody and foul smelling discharge from her umbilical region. Patient claim that



initially the swelling was small but progressively increased in size over the umbilical region. It was painless. Otherwise patient have no fever or any alteration in bowel and bladder habit.

Clinical examination revealed that the patient was conscious, alert with fair hydration.

There was a swelling over umbilical region measuring 2 cm x 3cm, reddish in colour, and minimal hemoserous discharge noted over the swelling and there was neither fistula nor sinus over it. It was not worm but tender and we could not look for cough impulse since it was tender. Her abdomen was distended but no sign of ascites.

Our initial diagnosis was an incarcerated umbilical hernia. Then we proceeded to exploration –surgery.

Intraoperatively, we found an umbilical hernia defect of 3 cm with blackish tissue surrounding the omentum in hernia sac. The both ovaries had a cyst measuring around 3cm x 2cm, brownish in colour with multiple cystic spot over the fallopian tubes. The uterus was normal.

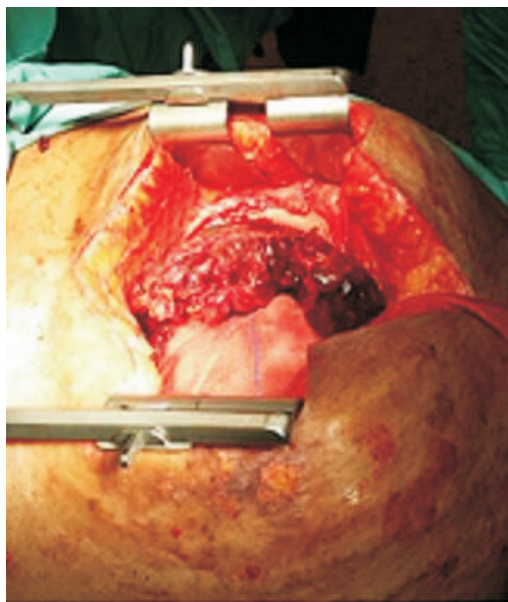


Figure 1: umbilical hernia defect of 3 cm with blackish tissue surrounding the omentum in hernia sac.

Postoperative diagnosis was an umbilical endometrioma. Decision was made to close hernia defect primarily and tissue biopsy was sent for histopathological exam after consultation with gynecology and oncology team. Histopathology featured as tumour infiltrated as complex glandular pattern with cribriform and villous-like formation. Immunohistochemical stains show the tumour cells are diffusely reactive to Vimentin with focal reactivity for cytokeratin 7, but non-reactive for estrogen receptor and progesterone receptor. Diagnosis was an endometrioid ovarian carcinomas which have metastasis to skin and omentum. Oncology and gynecology team had seen this patient post-operatively and did CT scan for staging. Impression was endometrial carcinoma involving uterus, cervix, adnexae bilaterally, most probably ovaries with mass in vesicouterine pouch and peritoneal metastasis, matted small bowels, multiple mesenteric nodes and enlarged abdominal and pelvic nodes.

Currently Oncology and gynecology are planning for total laparoscopic hysterectomy with bilateral salpingoophorectomy and pelvic/aortic lymph node dissection with Omentectomy and Appendicectomy and followed by chemoradiotherapy.

DISCUSSION:

Skin metastasis of endometrioid ovarian carcinoma is a rare, condition and conveys a poor prognosis. This patient developed an unusual umbilical swelling mimicking incarcerated umbilical hernia which was biopsied and proven to be a metastatic lesion from endometrioid ovarian carcinoma.

Distinguishing between cutaneous paraneoplastic lesions and those due to invasion of the skin through hematogeneous spread, lymphatic spread or by direct extension from a primary tumor is essential. Paraneoplastic dermatoses follow the evolution of the underlying cancer and are due to the

production by the tumor of hormones, cytokines and growth factors [2].

Malignant tumours of the ovary are cancerous growths that have the potential to spread (metastasize) to other parts of the body. Endometrioid ovarian carcinomas are the second most common type of epithelial ovarian cancer. These tumours are found most often in women over the age of 50. Endometrioid ovarian carcinoma can occur in both ovaries and grow to a large size. Between 10% and 40% of endometrioid ovarian carcinomas are associated with endometriosis, a disease in which the endometrium (inner lining of the uterus) grows in areas of the body other than the uterus. Intra-abdominal spread along the peritoneum and encasement of the intra-peritoneal structures is the most commonly seen along with pelvic and para-aortic lymphatic involvement at advanced stages. The most common site of extra-peritoneal involvement is the lung, with right-sided pleural effusion being the most common clinical finding.

The incidence of cutaneous metastases in internal malignancies has been reported between 0.7% and 10%. Incidence of various tumors metastasizing to the skin correlates with the sex-wise frequency of occurrence of various primary malignancies. As such, lung cancer (1.7 to 3.1%) and breast cancer (23.9%) are the commonest epithelial malignancies metastasizing to the skin in men and women respectively [3].

Histopathologically, the type of endometrial carcinoma that disseminated to the skin was endometrioid adenocarcinoma in our case – as the majority of studies that analyze skin metastases from endometrial cancer also report. A mixed Müllerian tumor has also been reported. In these lesions, neoplastic cells appear to be arranged in a gland-like pattern within the dermis with different grades of atypia. Metastatic skin disease from uterine papillary serous carcinoma, an aggressive variant of endometrial carcinoma mimicking serous papillary ovarian carcinoma, has been documented [4]. Clinically, cutaneous metastasis can take any form of lesions including nodules, papules, ulcers, plaques and tumors, with usually four histopathological forms involving the dermis; namely, nodular, infiltrative, diffuse and intravascular [5]. These lesions may be the only manifestation of an underlying visceral cancer.

The frequency of cutaneous metastasis is correlated to the frequency of each malignancy, which is why women with cutaneous metastases most frequently have the following primary malignancies: breast, ovary, oral cavity, lung and large intestine [4]. Globally, cutaneous metastases represent 2% of all cutaneous neoplasms [6].

To our knowledge, a systematic English-language literature search on PubMed between 1966 and 2013 using the terms 'endometrioid ovarian carcinomas', 'skin', 'cutaneous', 'metastasis' and 'spread' identified only 26 case reports of cutaneous metastasis in endometrioid ovarian carcinomas [7-9].

HISTOPATHOLOGY:

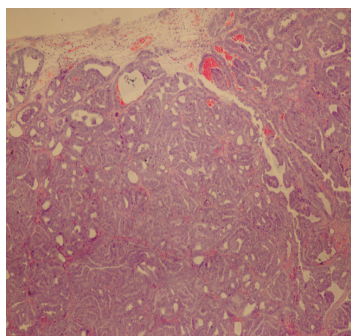


Figure 2: Ovary: Tumor infiltrates almost the entire ovarian stroma of specimen. The tumour infiltrates as complex glandular pattern with cribriform and villous-like formation. The malignant cells have basophilic round to oval shaped nucleus and some having small nucleolus. In areas, psammoma bodies are present within the lumen of these malignant glands.

Figure 3: Skin: The tumour infiltrates within subcutaneous fat and sparing the overlying epidermis.

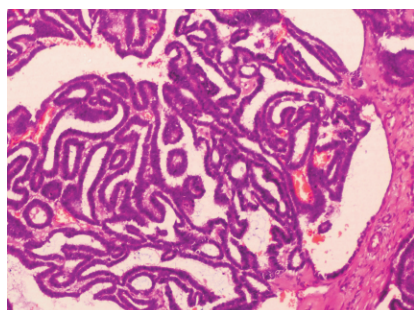
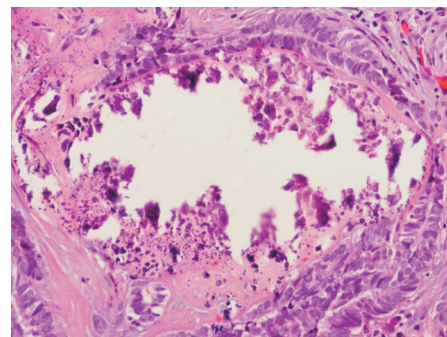


Figure 4: Omentum: Mitotic figures are frequently seen, up to 20/10 high power fields. The surrounding stroma shows desmoplastic reaction and in areas moderate infiltrate of lymphocytes, plasma cells, haemosiderin-laden macrophages and neutrophils are present.

Immunohistochemical stains show the tumour cells are diffusely reactive for Vimentin with focal reactivity for CK7, but non-reactive for ER and PR.

MANAGEMENT:

Umbilical hernias occur in only 8-12% of all abdominal wall hernias and estimates of <0.1% of all hernias is associated with malignancies. The umbilicus is a site at which intra-abdominal cancer metastases that are inoperable can be seen, because the tumors appear as a characteristic Sister Mary Joseph's nodule. Reports on surgical strategies for umbilical hernia repair in the presence of malignancy is not well described. How should these patients be managed surgically?

If it was an umbilical hernia with suspected ovarian masses, a pelvic ultrasound is the single most effective way of evaluating an ovarian mass with transvaginal ultrasonography being preferable due to its increased sensitivity over transabdominal ultrasound. Women with an ovarian mass with ultrasound findings should be referred to a gynecological oncological service.

Retrospectively in our case who underwent emergency surgical treatment and intraoperatively noted to be endometrioma. If high index of suspicious of ovarian malignancy was identified intra operatively a fresh frozen biopsy should have been sent and then an on table direct referral a gynecological oncological team for intraoperative reevaluation of the pelvic organs [10-11]. The incision should be closed primary repair with no mesh repair as studies have shown that relationship between inflammation and peritoneal metastasis, chronic stimulus of mesh plugs and peritoneal trauma caused peritoneal metastasis at the mesh repair sites [12]. As in this case the cutaneous involvement is a late complication and gives a poor prognosis. A proper counseling whether for debulking surgery should be carried out.

SUMMARY:

Cutaneous or umbilical metastasis of endometrioid ovarian carcinomas is very rare. It can cause a diagnostic challenge to the general surgeon evaluating an umbilical hernia. One should have a high

index of suspicion of endometrioid ovarian carcinomas when a women presents with a painful swelling in the umbilicus with bleeding. This case highlights the importance of considering endometrioid ovarian carcinomas with cutaneous metastasis in the differential diagnosis of any woman who presents with umbilical swelling and pain. Overall, the prognosis remains poor. Computed tomography and MRI can be useful and can give accuracy of preoperative diagnosis.

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