

Case report

GIANT ENDOMETRIOID OVARIAN CANCER: THE ROLE OF DIAGNOSTIC IMAGING AND FIGO STAGING

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ARTICLE INFO

Article history:

Received 24 April 2020

Revised 11 May 2020

Accepted 27 May 2020

Keywords:

adnexal masses, cystic detection, ultrasound, computed tomography, staging.

ABSTRACT

Endometrioid carcinoma accounts for 10% of all ovarian carcinomas. We hereby present a rare case of a large mass that occurred in a 50-year-old woman with a noticeable increase in abdominal circumference, who was assessed by ultrasound and computed tomography. At histopathology examination, a diagnosis of ovarian carcinoma with a prevalent endometrioid pattern was made. Diagnostic imaging plays an important role in detection, characterization and staging of adnexal neoplastic masses. FIGO staging and cell grading are indispensable in therapeutic management.

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1. Introduction

Ovarian cancer (OC) represents the 7th most frequently diagnosed tumor among women all over the world (REF). Ovarian neoplasms can be classified based on cells of their origin into epithelial, germ cell, sex cord stromal, or metastatic types. Epithelial tumors account for nearly 85% to 90% of all ovarian malignancies (REF). Histologic subtypes in epithelial ovarian cancer include serous, mucinous, endometrioid, clear cell, and undifferentiated tumors. Endometrioid subtype accounts for 10% of all ovarian carcinomas, most of which are malignant and invasive¹⁻². It can result from the degeneration of an endometriotic cyst, and can be associated with endometriosis³. Bilateral involvement is found in 30-50% of cases⁴. Giant endometrioid carcinoma is a rare finding. We hereby describe the case of a giant endometrioid ovarian carcinoma in a 50-year-old woman with a noticeable increase in abdominal circumference.

2. Case presentation

A 50-year-old woman in menopause was admitted to the Gastroenterology Unit complaining of painful abdominal distension slowly increasing over the last six months.

At palpation, the abdomen was moderately treatable. Laboratory blood tests revealed no abnormalities. Blood pressure was 120/70 mmHg. CA – 125 and CEA markers were in normal range. Abdominal ultrasound (US) examination (5 MHz) showed the presence of a voluminous retroperitoneal mass capsulated and with few peripheral septa. The lesion was inhomogeneously hypoechoic, with evidence of some parietal solid nodules (Figure 1 A-B). During a color-doppler US performed with low PRF (0.8 MHz), peripheral vascular spots were detected. Contrast-enhanced computed tomography (CE-CT) confirmed the presence of a well-capsulated lesion, the size of 36x35x30cm, likely of left ovarian origin, inhomogeneously hypodense in the pre-contrastographic phase regarding the corpuscular fluid content with evidence of hypervascular wall solid nodules (Figure 2 A-B). The mass also caused dislocation of adjacent abdominal organs without signs of infiltration. Neither pathological lymph nodes nor distant metastasis and ascites were detected. US and CE-CT findings were suggestive of ovarian cystadenocarcinoma. Thus, the patient underwent total hysterectomy with bilateral salpingo-oophorectomy, peritoneal washing, omentectomy, random peritoneal biopsies, pelvic and lombo-aortic lymphadenectomy. She did not develop any cardiorespiratory problems in the postoperative period. The anatomopathological evaluation revealed an ovarian carcinoma with a prevalent pattern of endometrioid carcinoma (G3).

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DOI: 10.3269/1970-5492.2020.15.22

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The neoplasm was limited to the left ovary, without invasion of the capsule and neoplastic cells at the surface; the cytology of peritoneal washing was negative; there was no evidence of lombo-aortic and pelvic lymphadenopathy. Therefore, the lesion was staged as FIGO IA. The patient underwent chemotherapy with paclitaxel and carboplatin and is currently undergoing clinical instrumental follow-up without recurrence.

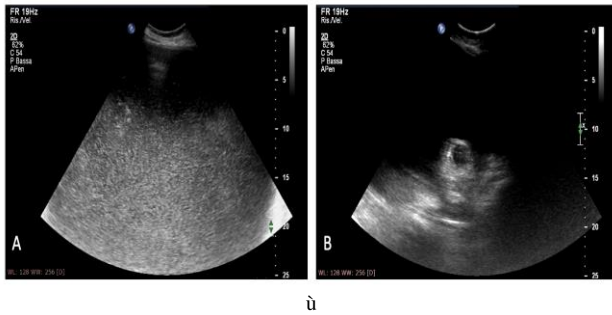


Figure 1 A and B. US showing the presence of an inhomogeneously hypoechoic lesion (A) with evidence of a solid parietal nodule (B)

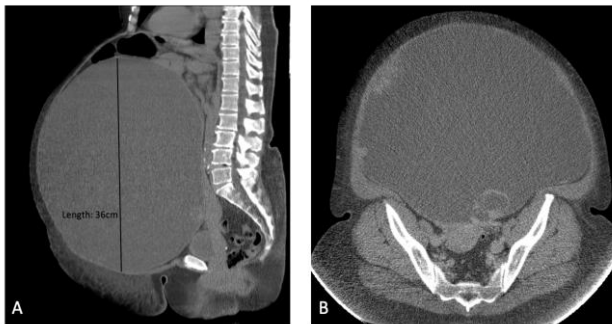


Figure 2 A and B. Sagittal and axial contrast-enhanced CT images showing the presence of the giant ovarian well-capsulated and inhomogeneously hypodense lesion (A) with evidence of few hypervascular parietal solid nodules (B).

3. Discussion

GCs Ovarian tumors with diameters greater than 10cm are referred to as giant ovarian cysts⁵. Currently, giant ovarian tumors are rarely encountered due to the early detection of adnexal pathology with current routine imaging techniques (REF). Pelvic US, CT, and magnetic resonance imaging are the imaging modalities of choice for the diagnosis of adnexal masses. (REF)

Ovarian endometrioid carcinoma accounts for two pathologic types: endometrial carcinogenesis and epithelial differentiation of germinal epithelium⁶.

Endometrioid carcinoma can be capsulated, lobulated, friable or cystic mass with parietal solid nodules (REF). The neoplasm is generally asymptomatic in the early phase, and can be incidentally discovered during screening exams. However, some patients can complain of abdominal pain, abdominal discomfort, dysuria.

Diagnostic imaging plays an important role in detection, characterization and staging of adnexal masses⁷. US is certainly the first level imaging technique utilized due to its inexpensive costs, the wide diffusion of the equipment on the territory, and the scarce contraindications⁸; color-doppler US has shown a sensitivity of 84% and a precision of 82% in diagnosing ovarian cancer¹⁻². US examination allows doctors to see the structural characteristics and the vascular behavior of the lesion. The dimensions, the presence of septa and solid nodules, as well as the presence of increased vascularization, are all signs of suspected malignancy. CT has shown a sensitivity of 81% and a precision of 87% in ovarian cancer diagnosis¹⁻². Additionally, CE-CT examination allows doctors to evaluate the spatial and dimensional ratios through multiplanar-reconstruction, as well as characterize the densitometric aspect and contrastographic pattern of the neoplastic lesion. CT also allows staging of the neoplasm³. FIGO staging and neoplasm differentiation grading are essential for guiding patient management. FIGO classification consists of four stages with substages (REF).

The grading of the neoplasm assesses the degree of cell differentiation of the tumor and divides them into: G1 - well differentiated, G2 - moderately differentiated, G3 - poorly differentiated. According to the FIGO guidelines, operative staging of ovarian cancer without extra-abdominal metastatic involvement is surgical. Surgical treatment is a priority in both the initial forms and in the advanced disease. Systemic chemotherapy is administered in patients at high risk of recurrence (FIGO IA and IB G3; IC and II stage) and in the advanced stages (FIGO III-IV). In advanced disease, treatment with neo-adjuvant chemotherapy followed by surgery and chemotherapy is sometimes chosen⁹⁻¹⁰. Nevertheless, follow-up guidelines are under discussion⁹⁻¹⁰. In our case, the patient was staged as FIGO IA and, consequently, started chemotherapy with paclitaxel and carboplatin.

In conclusion, to the best of our knowledge, our case is the largest ovarian endometrioid carcinoma described in the scientific literature. The patient is currently on follow-up, in good clinical conditions, with normal blood laboratory tests

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