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ENDOMETRIOID OVARIAN ADENOCARCINOMA: A CASE OF COMPLEX DIAGNOSIS AND SURGICAL MANAGEMENT IN A POSTMENOPAUSAL PATIENT

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ABSTRACT

We report the case of a 53-year-old postmenopausal patient with a history of type II diabetes and a previous uterine polypectomy, who presented with subacute pelvic pain. Imaging, including pelvic ultrasound and MRI, revealed a large right ovarian mass with both tissue and cystic components, suggesting a complex pathology. Following laparoscopy, a right oophorectomy with multiple biopsies was performed. The pathological diagnosis confirmed an endometrioid ovarian adenocarcinoma arising from an endometriotic cyst. A total hysterectomy and lymph node dissection were subsequently carried out, with a favorable outcome. This case highlights the importance of imaging and early diagnosis in managing ovarian masses in postmenopausal women.

INTRODUCTION

Ovarian masses in postmenopausal women are often benign, but can occasionally mask malignant pathologies, particularly ovarian cancers, which are among the most common cancers in postmenopausal women. Early diagnosis is crucial for a favorable prognosis. We report a clinical case of endometrioid ovarian adenocarcinoma, a relatively rare form that developed on an endometriotic cyst, emphasizing the diagnostic and therapeutic challenges encountered.

CASE REPORT

This is a 53-year-old postmenopausal woman for 3 years, G3P3, followed for type II diabetes and on oral hypoglycemic agents. She presented with subacute pelvic pain, without metrorrhagia or other associated gynecological or digestive symptoms. Clinical examination revealed a patient in good general health, with a BMI of 29 kg/m² and mild tenderness in the right iliac fossa on gynecological examination. Vaginal examination and speculum were normal, with no bleeding or palpable mass. A pelvic ultrasound revealed a right latero-uterine mass with a double component, irregular and vascularized on Doppler, measuring 81 x 72 mm. The uterus was of normal size, with a thin endometrium and no anomalies. MRI confirmed a large right ovarian mass of 7 cm, adherent to the lateral uterine wall, with both tissue and hemorrhagic cystic components, well circumscribed, and showing peripheral enhancement. The biological assessment showed a CA-125 of 94, with no significant abnormalities in other parameters. The cervical smear was normal, and after hospitalization, a laparoscopy was scheduled. During laparoscopic exploration, a 7 cm solid-cystic right ovarian mass was observed, with thin walls and a whitish surface, without exocystic vegetations. The left ovary was atrophic without abnormalities. No signs of peritoneal carcinomatosis were found.

Surgical Management: A right oophorectomy was performed, with multiple biopsies from the left ovary, pelvic lymph nodes (PLN), and omentum. Pathological results confirmed an endometrioid ovarian adenocarcinoma arising from an endometriotic cyst, with the ovarian cortex free of tumor proliferation. Biopsies from other tissues also showed no tumor invasion. A FIGO staging of the tumor was performed. Two weeks after the initial surgery, a laparotomy was carried out, including peritoneal cytology, total hysterectomy, left oophorectomy, bilateral ilio-obturator and retroperitoneal lymph node dissection, and infra-colic omentectomy. Pathological results confirmed the absence of tumor spread to the lymph nodes and omentum.

DISCUSSION

Ovarian masses in postmenopausal women, although often benign, can hide malignant pathologies. Ovarian cancers represent approximately 5% of cancers in women and are one of the leading causes of gynecological cancer mortality. Among the histopathological types of ovarian cancers, endometrioid adenocarcinoma remains relatively rare, accounting for about 10% of epithelial ovarian cancers, and is often associated with endometriosis.[1,2]

Endometriosis and Ovarian Cancer: Endometriosis, a benign condition where endometrial-like cells grow outside the uterus, is a well-documented risk factor for the development of ovarian cancers, particularly endometrioid adenocarcinoma. Studies have shown that women with endometriosis have an increased risk of developing ovarian cancer, with a three to four times higher risk of endometrioid adenocarcinoma compared to women without endometriosis.[3,4] In the present case, the ovarian mass associated with an endometriotic cyst and the final diagnosis of endometrioid adenocarcinoma highlight this relationship. The underlying biological mechanisms of malignant transformation in endometriosis remain poorly understood, but mutations in genes such as ARID1A and PTEN, which are common in both endometriosis and endometrioid ovarian tumors, have been identified as key factors in carcinogenesis.[5,6]

Imaging and Diagnosis: Imaging techniques, particularly pelvic ultrasound and MRI, play a central role in the evaluation of ovarian masses and in differentiating between benign and malignant tumors. In this case, the pelvic ultrasound showed an irregular mass with a double component, with signs of vascularization on Doppler, characteristic of malignant ovarian masses. MRI provided a better definition of the mass's characteristics and its adherence to the lateral uterine wall, an important clue for diagnosing a tumoral process. Indeed, MRI is increasingly used as the preferred method for evaluating ovarian masses due to its ability to distinguish solid masses from cystic ones and detect signs of local invasion.[7] The use of the tumor marker CA-125 in this case, with a level of 94 U/mL, supported the hypothesis of malignancy, although CA-125 is not specific to ovarian cancer. While CA-125 is frequently elevated in ovarian cancers, its increase can also be observed in benign conditions such as endometriosis, limiting its diagnostic utility in this context.[8]

Surgery and Management: Surgical treatment remains the cornerstone of ovarian cancer management. In this case, a laparoscopy was performed, followed by right oophorectomy with multiple biopsies. The decision to perform early surgical intervention, combined with biopsies of pelvic lymph nodes and omentum, allowed for a more accurate diagnosis and assessment of the disease extent. FIGO staging of the tumor was essential for determining the prognosis and guiding therapeutic management. In this case, FIGO staging helped stratify the risk of spread and guided surgical management.[9] The second surgical procedure, carried out 15 days after the first operation, involved a laparotomy with total hysterectomy, left oophorectomy, and extensive lymph node dissection. This aggressive approach is commonly

adopted when malignancy is suspected, especially in advanced stages, to ensure complete disease management. The option of bilateral lymph node dissection and infra-colic omentectomy is often associated with better prognosis by allowing complete resection of affected areas.[10] However, it should be noted that the use of extensive surgical interventions can be limited by the individual characteristics of each patient, such as comorbidities and advanced age.

Prognosis and Follow-up: The prognosis for patients with endometrioid ovarian cancer is generally better than for other types of ovarian cancers, primarily due to their tendency to be diagnosed at an early stage and their favorable response to chemotherapy.[11] Postoperative follow-up for patients who have undergone surgery for ovarian cancer includes monitoring tumor markers, regular clinical exams, as well as ultrasound and MRI to detect any recurrence. Standardized follow-up, including echomammography in this specific case, is essential for early detection of complications.

CONCLUSION

This case illustrates the importance of a multimodal diagnostic approach combining imaging, surgical exploration, and histopathological analysis in the management of ovarian masses in postmenopausal women. The combination of endometriosis and ovarian malignancy, although rare, requires careful management and appropriate surgical intervention. The prognosis largely depends on the stage at the time of diagnosis and the completeness of surgery, with rigorous follow-up to ensure early detection of any recurrence.

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