Case Report

Rare Histological Features of Endometrial Carcinoma: Malignant Mixed Müllerian Tumour with Corpus Cancer Syndrome — A Case Report

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Malignant mixed Müllerian tumour (MMMT) is an uncommon variant of endometrial carcinoma that carries a poor prognosis due to its aggressive nature. We present a case of a 59-year-old woman who presented to our outpatient department with persistent abnormal vaginal bleeding for two months. Following biopsy, the tumour was diagnosed as uterine carcinosarcoma. She underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection. Final histopathological examination revealed features consistent with MMMT (carcinoma component: 80%, sarcoma component: 20%). According to the International Federation of Gynaecology and Obstetrics (FIGO), the tumour was staged as IIIB. One month postoperatively, the patient remained healthy and symptom-free.

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Introduction

Uterine carcinosarcoma (UCS), also known as malignant mixed Müllerian tumour, is a rare and aggressive gynaecological malignancy accounting for less than 5% of all uterine tumours but responsible for approximately 16.4% of uterine cancer-related mortality. It is typically associated with a poor prognosis, with most cases exhibiting extrauterine spread.

UCS is a biphasic neoplasm with both carcinomatous and sarcomatous components, primarily of epithelial origin as confirmed histologically. Consequently, it is more accurately classified as an epithelial tumour with sarcomatous differentiation[4]. Known risk factors for UCS include prior pelvic radiation, obesity, smoking, and the use of tamoxifen.

Clinically, UCS often presents at an advanced stage with abnormal uterine bleeding, rapidly enlarging uterus, pelvic pain, or the presence of a fleshy mass protruding from the cervix. It exhibits a high propensity for lymphatic, peritoneal, and haematogenous spread. The diagnosis is staged using FIGO and TNM systems. According to current NCCN guidelines, optimal treatment involves radical surgery, including total hysterectomy, bilateral salpingo-oophorectomy, and lymph node dissection.

Clinical Presentation

A 59-year-old obese multiparous woman (BMI: 36.03), postmenopausal for 12 years, presented to our outpatient clinic with persistent abnormal vaginal bleeding for two months. She had her menarche at 11 years of age. She had three live children, with the last child birth 33 years back. She had a history of tubectomy 33 years ago and cataract surgery in the left eye 1.5 years prior. She was a known case of type 2 diabetes mellitus and hypertension for the past three years, controlled on medication[7]. Regular Papanicolaou smears had been reported as normal.

Transvaginal ultrasonography revealed an anteverted, normal size of uterus of size 80 x 36 x 37 mm. Ovaries on either side show normal echotexture. No adnexal mass is seen.

Transabdominal ultrasonography revealed an endometrial thickness of 6 mm and a calcified myoma measuring approximately 1.7 × 2.7 cm in the posterior myometrium. The patient underwent dilatation and curettage, and histopathology revealed high-grade carcinosarcoma. Pelvic MRI demonstrated a 6.2 × 4.3 × 5.2 cm mass arising from the endometrium with loss of the junctional zone and myometrial invasion, particularly in the fundus and anterior uterine body. Enlarged lymph nodes were also noted along the left iliac vessels.

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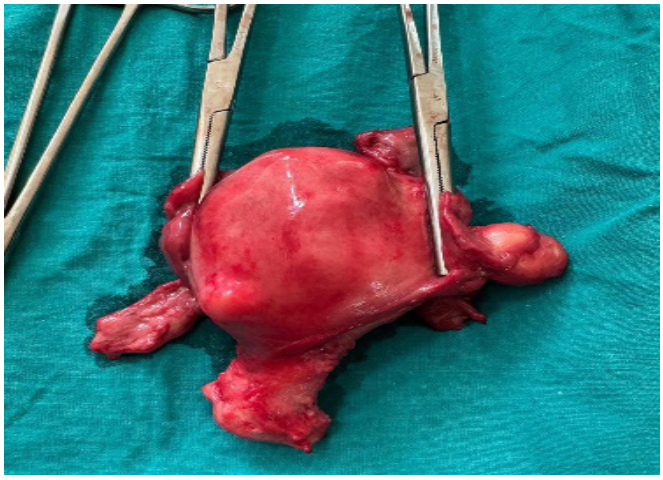

Figure 1: Gross specimen of uterus with cervix with bilateral fallopian tubes and ovaries

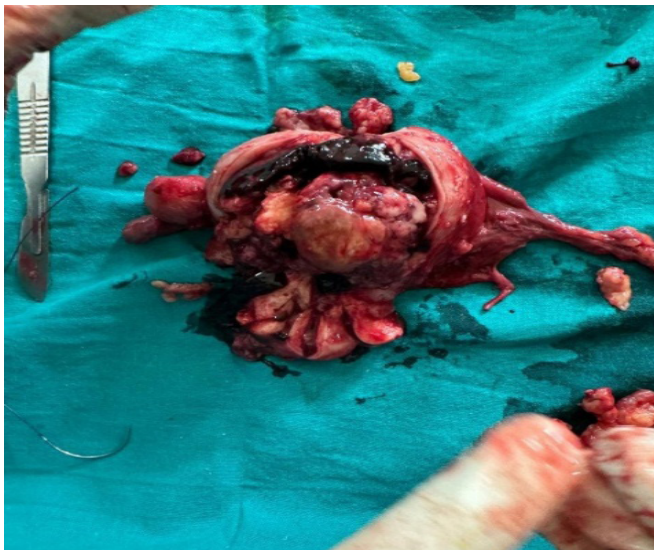

Figure 2: Cut section of uterus with cervix with bilateral fallopian tubes and ovaries

She subsequently underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection on 15 January 2025.

Final pathological examination showed deep myometrial invasion (more than half the thickness), lymphovascular emboli, and tumour infiltration into the lower uterine segment and left parametrium. Histological analysis confirmed a malignant mixed Müllerian tumour with 80% carcinomatous and 20% sarcomatous components. The tumour was staged as FIGO Stage IIIB.

Discussion

Uterine carcinosarcoma, also referred to as MMMT or mixed mesodermal sarcoma, was historically classified as a uterine sarcoma but is now considered

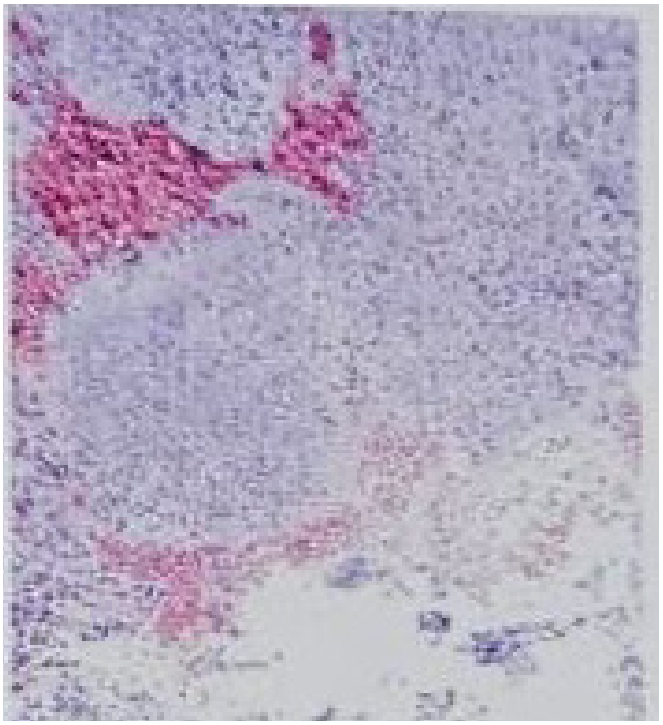

Figure 3: Histopathological image of Malignant mixed mullerian tumor

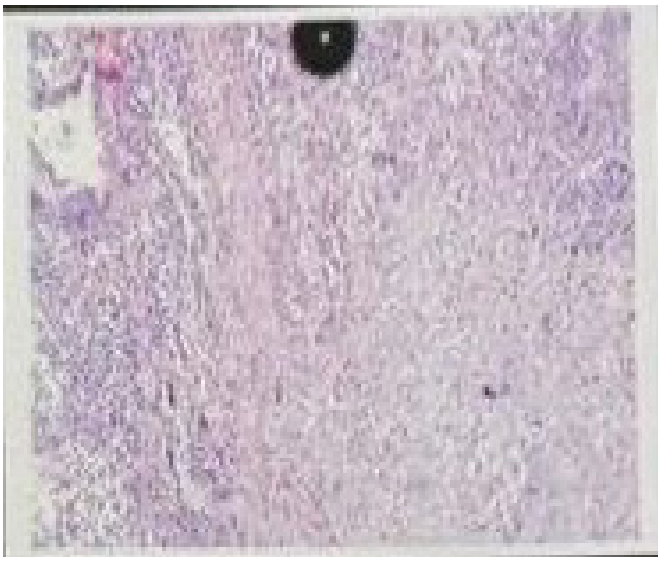

Figure 4: Histopathological image of Malignant mixed mullerian tumor

a dedifferentiated carcinoma arising from monoclonal neoplastic cells[4]. Risk factors include obesity, nulliparity, and use of tamoxifen or exogenous oestrogens.

Patients typically present with pain, vaginal bleeding, or a rapidly enlarging uterus. Our patient experienced persistent bleeding for two months. While imaging modalities are helpful, endometrial biopsy with histopathological confirmation remains the gold standard for diagnosis.

MMMT diagnosis relies on histological identification of both epithelial and mesenchymal malignancies, complicating classification[1]. These tumours exhibit genetic and molecular heterogeneity, contributing to variable clinical behaviour and therapeutic response. The lack of specific biomarkers poses challenges to personalised treatment[5].

The primary management of MMTs limited to the abdomen is surgery for staging and initial treatment, including total hysterectomy, bilateral salpingo-oophorectomy, and pelvic and para-aortic lymph node dissection. In all patients with carcinosarcoma, lymphadenectomy should be done for staging and survival improvement.[8]

Surgical staging of uterine carcinosarcoma is done based on the 2017 International Federation of Gynecology and Obstetrics/Tumor, Node, Metastasis classification system. The stage of diagnosis after surgical resection determines the approach to adjuvant treatment.

- Stage IA: Observation of the patient is done. Adjuvant therapy is uncertain.
- Stages IB–IV: In the absence of adequate supporting evidence, combination platinum-based chemotherapy is given. Most commonly, carboplatin and paclitaxel are given after surgical removal.

CA-125 is monitored every 3 months and compared with preoperative levels in advanced-stage disease [9]. The 5-year survival rate for Stage III carcinosarcomas is ~30%, and only 50% is diagnosed at Stage I [8].

Conclusion

This case underscores the aggressive nature and diagnostic complexity of uterine carcinosarcoma. The patient, a 59-year-old woman with multiple risk factors, presented with persistent vaginal bleeding and was diagnosed with high-grade carcinosarcoma. Imaging revealed deep myometrial invasion and lymphadenopathy, consistent with FIGO Stage IIIB disease[3]. She underwent radical surgical management. Histopathology confirmed the biphasic nature of the tumour and lymphovascular invasion.

Early diagnosis, appropriate imaging, and radical excision are essential for improving outcomes. Nevertheless, UCS remains associated with a poor prognosis due to high rates of recurrence and metastasis [2,6].

Recommendations

We recommend a comprehensive diagnostic workup for suspected rare uterine malignancies, including advanced imaging and histopathology, to determine the extent of disease and guide optimal treatment strategies, including surgical and chemotherapeutic interventions.

Early and aggressive management may help reduce morbidity and mortality.

Consent

Written informed consent was obtained from the patient for the publication of this case report.

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