Case Report

Uterine Papillary Serous Carcinoma (UPSC): A Rare Case Report

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Abstract

Uterine papillary serous carcinoma (UPSC) accounts for 5-10% endometrial cancers, although they account for majority of endometrial cancer mortality. This case report discusses a 58-year-old female menopausal for fifteen years presented with vaginal discharge for two months, post-menopausal bleeding for 20 days, and lower abdominal pain after 20 days. Bloating, vomiting, constipation, increased urine frequency, and abnormal uterine bleeding were eventually diagnosed as Uterine Papillary Serous Carcinoma (UPSC).The case emphasizes the limitations of early identification, the significance of histological confirmation, and the therapeutic choices for controlling this aggressive tumor.

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Introduction

Uterine Papillary Serous Carcinoma (UPSC) is one of the aggressive histological subtypes of endometrial cancer and is rarely seen in 5-10% of all histologic subtypes of endometrial malignancies. Histologically it is characterized by serous differentiation, papillary architecture, sufficiently high proliferation activity and clinically by early metastases and poor prognosis.[1] Symptoms that patients of UPSC present include abnormally regular bleeding, pelvic pain, or metastasis, most of which occur at a later stage of the disease.[2]

UPSC typically arises from the endometrium, and genetic alterations, particularly in the TP53 gene contribute to its pathogenesis. It is evident that this tumor commonly metastasizes to peritoneum, pelvic lymph nodes as well as lungs and liver. Although more frequent in postmenopausal women, it can occur at any age, with the highest frequency in women aged 60-70.[3]

The mainstay of treatment is surgery, which is frequently followed by platinum-based chemotherapy. Even with vigorous therapy, recurrence is common, and survival rates remain low. Early detection and molecular profiling have proven more crucial for identifying UPSC from other uterine carcinomas and optimizing treatment methods.[4]

Case Report

A 58-year-old female, who had been menopausal for 15 years, presented in department of gynaecology and obstetrics at Shaikh Zayed Medical Complex Lahore on May 2024 with two-month history of vaginal discharge,

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post-menopausal bleeding for 20 days, and lower abdominal pain for 20 days, associated with bloating, vomiting, constipation, and increased urinary frequency. She was diagnosed with Uterine Papillary Serous Carcinoma (UPSC) after extensive evaluation. The vaginal discharge was brownish, thin, and creamy in consistency, copious in amount, and foul-smelling, without itching. The patient reported heavy post-menopausal bleeding, soaking 5–6 pads per day, accompanied by abdominal pain. Her medical history included hypothyroidism, treated with daily levothyroxine for 22 years, and hypertension for one year, managed with oral antihypertensive. She had a significant past surgical history, including an elective LSCS in 1996, a left-sided radical mastectomy in 2019 followed by chemotherapy for breast cancer, and appendectomy and cholecystectomy in 2020. Besides, she had an acute ischemic cerebral vascular accident CVA in April 2024, which caused her blurred vision. There was a history of parental hypertension, but no breast, ovarian, endometrial, cervical or colon cancer in her family members.

On clinical examination, the patient was clinically stable, free of any distress, but noted to be pale. There were no finding of jaundice, cyanosis or edema. The thyroid was not enlarged, no breast masses or palpable lymph node was felt. Abdominal examination showed the abdomen to be moderately swollen but not tender and uterine examination also showed some enlargement of the uterus. Vulvar and vaginal atrophy, post-menopausal bleeding with foul-smelling discharge and hypertrophic cervix were observed during pelvic examination. Palpation per abdomen bilaterally showed a leeward molar mass with a uterus integrity of 8-10weeks with left fornix loaded.

Surprisingly cases investigated showed a heterogeneous endometrial mass of 4.5 cm on P/U/S and a thickened endometrial stripe with no evident metastasis to ovaries or pelvic nodes. Contrast enhanced CT revealed a large uterus with thick endometrium, a 4×6 cm cyst with internal echoes in the left ovary, enlarged paaraortic and paaracaval lymphnodes, omental thickening and metastatic nodules. The serum CA-125 level was elevated at 742 U/mL, indicating possible peritoneal spread. Histopathological examination confirmed the diagnosis of UPSC, characterized by papillary architecture, high nuclear grade, and extensive infiltration into the endometrial stroma.

Given the advanced disease, a multidisciplinary approach was adopted for management. The patient underwent total abdominal hysterectomy, which included excision of parametrial and paracervical tissue, omentectomy, and maximum debulking (Figure 1). Intraoperative findings revealed moderate ascites, a bulky uterus, a ruptured left ovary with a complex cyst, and extensive metastatic deposits on the abdomen, uterus, bladder, and omentum (Figure 2).The final surgical staging was FIGO Stage IV B. Postoperatively, the patient was transferred to the ICU for monitoring due to her multiple comorbidities and was subsequently discharged on the 8th postoperative day in stable condition.

The histopathology report confirmed high-grade uterine serous papillary carcinoma involving the endometrium, myometrium (with greater than 50% invasion), and cervical, bilateral fallopian tube, ovary, and parametrium involvement. Ascitic fluid was positive for malignant cells, and extensive lymphovascular invasion was noted. The omentum showed metastatic carcinoma. The patient was followed up regularly every three months, with physical exams, serum CA-125 levels, and imaging studies. Her recovery was uneventful, and CA-125 levels gradually normalized after chemotherapy.

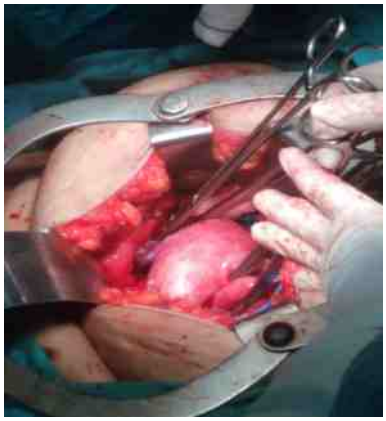

Figure 1: *Operative Procedure*

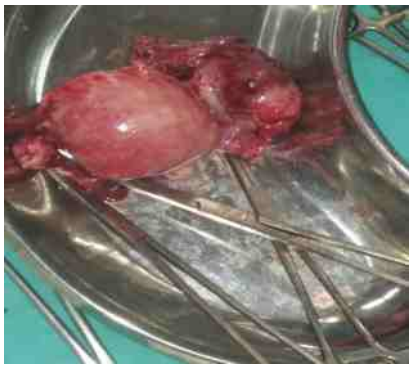

Figure 2: *Bulky uterus with left ovarian tumor*

Discussion

Uterine papillary serous carcinoma is a histological subtype of endometrial cancer, and is considered a high-grade cancer type which is more aggressive than the

common type, and is more commonly associated with peritoneal spread and lacks responsiveness to conventional treatment modalities.[5] It is most often identified in postmenopausal women, with abnormal vaginal bleeding being the most prevalent symptom. UPSC, unlike endometrioid carcinoma, is more likely to spread outside of the uterus at the time of diagnosis, with peritoneal dissemination being the most common pattern.[6] Histologically, UPSC is characterized by a papillary engineering, stamped atomic abnormal and high mitotic movement. Immuno-histochemically markers, for example, p53, WT-1, and emergency room/PR cynicism are many times supportive in separating UPSC from other endometrial diseases. The visualization of UPSC is by and large poor, with a high pace of repeat and metastasis.[7] The 5-year endurance rate is altogether lower than that for endometrioid carcinoma, with endurance to a great extent subject to the stage at determination and the presence of leftover infection post-surgery.[8] Surgical organizing stays the foundation of treatment, with complete hysterectomy and two-sided salpingo-oophorectomy, alongside lymphadenectomy, being standard practice for ladies with beginning phase sickness. For cutting edge cases, adjuvant chemotherapy with specialists like paclitaxel and carboplatin is the therapy of decision, albeit the job of radiation treatment stays less characterized.[9]

Conclusion

Uterine papillary serous carcinoma is an uncommon and severe tumor that spreads rapidly and has a terrible prognosis. Early detection remains difficult since symptoms are typically vague and might be confused for benign gynecological disorders. This example emphasizes the significance of a full evaluation in postmenopausal women with atypical bleeding, which includes endometrial biopsies and imaging investigations. A multidisciplinary strategy that includes surgery, chemotherapy, and close follow-up is critical for improving outcomes in UPSC patients.

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Authors' Contribution

AWK: Conception and design, drafting the article or revising it critically for important intellectual content

EK: Conception and design, drafting the article or revising it critically for important intellectual content. final approval of the version to be published

SS: Drafting the article, final approval of the version to be published.

MM: Analysis & Interpretation, drafting the article

SS: drafting the article

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