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Secondary Post Partum Hemorrhage Associated with Cervical Cancer: A Case Report

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ABSTRACT

Cervical cancer is one of the major causes of cancer-related death in women worldwide. It is the fourth most common malignancy, responsible for approximately 604,000 new cases and 342,000 deaths annually worldwide. Secondary Post Partum Hemorrhage (SPPH) is an uncommon but serious complication typically caused by retained placental tissue, infection, or uterine atony. Cervical cancer is a rare and potentially overlooked cause. This case report presents a 26-year-old woman, para 1, who developed persistent vaginal bleeding two weeks after an uncomplicated cesarean delivery. She had no prior cervical screening history. Clinical evaluation revealed anemia, leukocytosis, and uterine tenderness. Following unsuccessful conservative management, a cervical biopsy was performed, which led to a histopathological diagnosis of cervical adenosquamous carcinoma. This case highlights that cervical malignancy, though rare in young postpartum patients, can manifest as SPPH. It underscores the necessity of including cervical cancer in the differential diagnosis of persistent postpartum bleeding, even in the absence of classic risk factors. Timely investigation with tissue sampling is critical for early diagnosis and appropriate oncological referral to improve patient outcomes.

Keywords: *Carcinoma; Cervical cancer; postpartum hemorrhage; vaginal bleeding.*

INTRODUCTION

Pregnancy-related malignancies are defined as cancers diagnosed during pregnancy or within 12 months postpartum. Although rare, with an estimated incidence of 1 in 1000 to 1 in 2000 pregnancies, cancer during pregnancy presents a significant clinical challenge (Pawlus et al., 2023; Petca et al., 2025). Advanced maternal age, more common in developed countries, is a recognized risk factor for oncogenesis (Dalmartello et al., 2020). Among pregnancy-associated cancers, the most frequent are breast cancer, cervical cancer, melanoma, ovarian tumors, and hematological malignancies (Pawlus et al., 2023; Dalmartello et al., 2020). The coexistence of pregnancy and cancer poses diagnostic and therapeutic challenges. Symptoms of malignancy are often non-specific and may be misattributed to physiological changes of pregnancy. For instance, nausea, vomiting, fatigue, anemia, constipation, and even vaginal bleeding may obscure an underlying malignancy, leading to delayed diagnosis (Eastwood-Wilshere et al., 2019; Dinu et al., 2025). Advanced cancer of the cervix may not be curable, and women often need treatment to control distressing symptoms (palliation), such as vaginal bleeding. Bleeding can be severe enough to be life threatening in women with advanced cervical cancer (Eleje et al., 2019). Bleeding is the immediate cause of death in 6% of women with cervical cancer and its management often poses a challenge (Yennurajalingam, 2009).

Secondary postpartum hemorrhage (SPPH) is defined as any significant vaginal bleeding that occurs between 24 hours after placental delivery and during the following 6 weeks (Hoveyda & MacKenzie, 2001). Unlike the definition of primary PPH, there is no clear or standard definition for quantity of the blood loss associated with secondary PPH, and clinical expressions of this definition vary from 'increased lochia' to massive bleeding. The diagnosis

is therefore all too often subjective, which may account for the numerous variations in reported incidence. Overall, the reported incidence of secondary PPH in the developed world varies from 0.47% to 1.44%. Common causes of SPPH include retention of the placenta, endometritis, and delayed placental bed involution. Other less common etiologies are congenital coagulopathies, cervical cancer, submucous fibroids, placenta adherens, cesarean scar dehiscence, uterine pseudoaneurysm, and uterine rupture (King et al., 1989). In this report, we present a case of cervical cancer as a cause of SPPH.

In this report, we present a rare case of cervical cancer manifesting as secondary postpartum hemorrhage. This case report aims to detail the clinical presentation, diagnostic challenges, and management approach for this uncommon association. By documenting and analyzing this case, we seek to enhance clinical awareness among healthcare providers, emphasizing the importance of considering cervical cancer in the differential diagnosis of persistent postpartum bleeding, especially in patients with atypical presentations. The insights gained from this report are expected to contribute to earlier detection and appropriate intervention, potentially improving patient outcomes and adding to the limited literature on this rare clinical scenario.

METHOD

This case report describes a single-patient observational study utilizing a descriptive analysis of clinical, laboratory, and histopathological data obtained from the patient's medical records. All information was collected retrospectively following the patient's hospitalization and diagnostic confirmation. The study was conducted in accordance with ethical standards, and informed consent was obtained from the patient for the use of her clinical data for educational and publication purposes.

Case Report

A 26 years old woman, P1011 came with complaints of frequent vaginal bleeding. She also presented with lower abdominal pain with VAS Score 7 and fever. Fever was up to 38 C. Her history included one previous caesarean sections without any serious complication. The caesarean section was performed on the patient 23 days before admission. Two weeks following the procedure, she began to experience vaginal bleeding. The patient had no prior history of gynaecological issues or other illnesses before the pregnancy, and her Body Mass Index was within the optimal range. History of pap smear examinations was absent. There was no prior history of placenta abnormalities or vaginal bleeding during pregnancy. No family history of cancer was found.

Physical examination revealed motion tenderness of the uterine cervix and the uterus was at the umbilical level, contraction were good. On investigation, transavaginal ultrasound showed a anteflexion uterus measuring 11.2 cm x 7.07 cm, right and left adnexa within normal limits and no free fluid is visible. Laboratory tests showed a Hemoglobin level of 8.8 g/dl, WBC level of 21.860/ µL, coagulation test were within normal limits. The patient underwent a transfusion of 4 Packed Red Cells and was monitored for 4 days.

Based on history, physical and supporting examination the patient was diagnosed with post c-section surgery with secondary post partum hemorrhage caused by suspected cervical cancer. Under the impression of post partum fever with metritis, Ceftriaxone 1 gr every 12 hours, Metronidazole 500 mg every 8 hours and Paracetamol 500 mg every 6 hours was prescribed.

Along with the unrelenting vaginal bleeding, curettage and biopsy was perfomed 30 days after the c-section surgery. Cervical tissue were sent to Anatomical Pathology (PA) laboratory for examination after the surgery. The patient was discharge with a stable condition one day after surgery. One week later, the definitive diagnosis based on conclusion of histopathological findings was a cervical adenosquamous carcinoma. The patient was then referred to a tertier oncology gynecologist.

RESULTS AND DISCUSSION

To the best of our knowledge, cervical cancer as a cause of secondary postpartum hemorrhage (SPPH) has never been reported before. There was a case of 29 years old patient who presented with preterm prelabor rupture of membranes, developed significant vaginal bleeding requiring an immediate cesarean delivery, and was subsequently diagnosed with stage IIIB squamous cell carcinoma of the cervix (Wong et al., 2020). Also there was a case of 29 year old woman presented with vaginal bleeding during pregnancy, the bleeding had been occurred for 3 months even before the pregnancy and was diagnosed with cervical carcinoma FIGO stage IB3 in 10 weeks of pregnancy (Putri & Wiranegara, 2022). In our case, the patient remained asymptomatic until two weeks after her repeat cesarean section, when she developed heavy vaginal bleeding.

Cervical cancer is a term used to describe tumours that can develop in the lower end of the womb (uterus). The cervical canal of the cervix (neck of the womb) is lined with mucous membrane with glands producing a thick fluid, which acts as a barrier, preventing pathogens from entering higher structures of the genital tract (uterus, fallopian tubes, ovaries). The effect of pregnancy on cervical cancer progression remains controversial (Olejniczak & Zasowska-Nowak, 2023).

The clinical presentation of cervical cancer in pregnant women depends on the clinical stage and size of the tumor. In the early stages, most cases are asymptomatic or sparsely symptomatic. The most prominent symptoms are irregular or heavy vaginal bleeding, especially after sexual intercourse. In some patients, the first symptom is abnormal vaginal discharge, which could be watery, mucous, or purulent and malodorous. In late stages, pelvic pain or chronic anemia due to prolonged irregular vaginal bleeding predominates. These symptoms can make diagnosis difficult, as they also occur in the course of other diseases during pregnancy (Johnson et al., 2019; Beharee et al., 2019). Increased levels of estrogen, progesterone, and human chorionic gonadotropin, as well as local immunosuppression during pregnancy, may induce HPV reactivation, indirectly suggesting that pregnancy may promote cervical cancer progression. Additionally, increased uterine blood circulation and cervical dilatation during childbirth may increase the risk of spreading cancer cells and accelerate cervical cancer progression (He et al., 2022).

The human papillomavirus (HPV) is one of the most common viral infections of the reproductive tract of sexually active individuals, both male and female, which occurs either through skin to skin or mucosa-to-mucosa contact (Haręża et al., 2022). Although HPV infections clear up spontaneously, there is a risk that these infections may further progress into precancerous and cancerous lesions (Olejniczak & Zasowska-Nowak, 2023); most precancerous lesions lead to cervical cancer (Kjaer et al., 2021). The very presence of HPV lesions favors obstetrical complications, even if the precise physiopathology is not well known

(Hooda et al., 2022; Condrat et al., 2021). It is therefore essential to act on primary prevention. The real-life efficacies of HPV vaccination programs have been demonstrated in several national surveys, with significant reductions in the risk of invasive cervical cancer (Lei et al., 2020; Falcaro et al., 2021).

In one literature review, among the 123 women who developed SPPH, the most common etiology of secondary post partum hemorrhage was endometritis in 83 (67.5%) women, followed by retained placental tissue in 26 (21.1%) women. The other less common etiologies were uterine artery pseudoaneurysm in four (3.3%) women, birth canal injury in four (3.3%) women, coagulopathy/thrombocytopenia in three (2.4%) women, uterine atony in two (1.6%) women, and cervical cancer in one (0.8%) woman (Chainarong et al., 2022). In this case, the patient was 28 years old, which unusual for the cervical cancer develop in this age. This is because the process of cancer generally develops over a period of 10 to 20 years. However, there are some lesions that turn into cancer in a faster time, namely within two years (Maharani, 2017).

Several risk factors are linked to the increase in the prevalence of cervical cancer. These include initiating sexual activity under the age of 16 years, having multiple sexual partners and infrequent condom use, prolonged use (more than 5 years) of oral contraceptive pills, having a weakened immune system (including being HIV positive), low socioeconomic status, and smoking (Zhang et al., 2020). In our case, it is known that the patient admitted sexual intercourse with her husband for the first time when she was 16 or in the second grade of high school. The patient denied having more than one partner and had never received an HPV vaccination.

Vaginal bleeding is the most common symptom occurring in patients with cancer of the cervix. Most often, this is postcoital bleeding, but it may occur as irregular or postmenopausal bleeding. Patients with advanced disease may present with a malodorous vaginal discharge, weight loss, or obstructive uropathy (Tsikouras et al., 2016). The patient in our reports experiencing regular vaginal bleeding. In addition, she had a fever and lower abdomen ache with a VAS score of 7, this is due to when cancer develops, it causes abnormal tissue growth on the cervix. These cancerous tissues are fragile and prone to bleeding. Bleeding can be caused by the cancer itself, as with local tumor invasion, abnormal tumor vasculature, or tumor regression (Tsikouras et al., 2016). Tumor growth can cause obstruction of tubular organs and disruption of anatomical barriers, leading to penetration of bacteria into the bloodstream (Rolston, 2017).

Screening strategies for cervical cancer include Pap smear testing alone, primary HPV testing alone, or co-testing (with Pap and HPV testing). For patients under 21, screening is not required regardless of the age of initiation of sexual activity. In patients between 21-29, screening is initiated at age 21 with cervical cytology every three years. For patients aged 30 to 65, either Pap testing alone every three years or co-testing (PAP and HPV testing combined) every five years is recommended. For patients who are above 65, the decision to continue screening depends on whether the patient has had an adequate prior screening, life expectancy, and preferences in a shared decision-making discussion. Symptomatic patients should have Pap smear testing as part of a diagnostic workup, regardless of prior screening results (Fontham et al., 2020). In this case, the patient claimed not to have experienced any symptoms before delivery, thus she declined a pap smear test for cervical cancer screening.

In Indonesia, diagnostic and treatment approaches for cervical cancer in pregnancy have been using a guideline from Indonesian Society of Gynecologic Oncology. The treatment approach in this guideline is based on stage of the disease and gestational age. At 16 – 20 weeks of gestation, it is recommended to perform immediate surgery or chemoradiation. In second trimester of pregnancy and afterward, surgery and chemotherapy can be applied in certain cases to preserve the pregnancy. Above 20 weeks of pregnancy, delayed treatment can be opted in stage IA2 and IB1. When the fetus is viable, transabdominal cesarian section can be performed followed by radical hysterectomy. Adjuvant chemotherapy is recommended in locally advanced disease (HOGI, 2018). The 5-year survival rate for stage I cancer of the cervix is approximately 85% with either radiation therapy or radical hysterectomy (Berek, 2012). In our case, restaging is necessary to determine further, more efficient management.

CONCLUSION

The secondary post partum hemorrhage associated with cervical cancer is a rare case. Most patients with early stage cervical cancer are asymptomatic and can lead to abnormal vaginal bleeding due to the fragile and invasive nature of the tumor affecting the cervix. Thus, in the long term, reporting more case may give clinicians more information and make it easier for them to consider cervical cancer as one of the causes of secondary PPH. Therefore, it is recommended that cervical cancer be considered in the differential diagnosis of persistent or unexplained secondary postpartum hemorrhage, especially in patients with risk factors or atypical bleeding patterns. Furthermore, enhancing routine antenatal and postpartum screening, particularly in high-risk populations, along with increased patient education regarding gynecological symptoms, may facilitate earlier detection and timely intervention. Future documentation and analysis of similar cases may enrich clinical understanding and improve management protocols for this uncommon yet critical presentation.

REFERENCES

Beharee, N., Shi, Z., Wu, D., & Wang, J. (2019). Diagnosis and treatment of cervical cancer in pregnant women. *Cancer Medicine*, *8*, 5425–5430.

Berek, J. S. (Ed.). (2012). *Berek & Novak's gynecology* (15th ed.). Wolters Kluwer Health/Lippincott Williams & Wilkins.

Chainarong, N., Deevongkij, K., & Petpichetchian, C. (2022). Secondary postpartum hemorrhage: Incidence, etiologies, and clinical courses in the setting of a high cesarean delivery rate. *PLoS One*, *17*(3), e0264583.

Condrat, C. E., Filip, L., Gherghe, M., Cretoiu, D., & Suciu, N. (2021). Maternal HPV infection: Effects on pregnancy outcome. *Viruses*, *13*, 2455.

Dalmartello, M., Negri, E., La Vecchia, C., Scarfone, G., Buonomo, B., Peccatori, F. A., Zambon, A., Corrao, G., & Parazzini, F. (2020). Frequency of pregnancy-associated cancer: A systematic review of population-based studies. *Cancers*, *12*, 1356.

Dinu, M. D., Sima, R. M., Diaconescu, A. S., Poenaru, M. O., Gorecki, G. P., Amza, M., Ionescu, C. A., & Ples, L. (2025). Diagnosis and management of cancers in pregnancy: The results of a dual battle between oncological condition and maternal environment—Literature review. *Cancers*, *17*, 389.

Eastwood-Wilshere, N., Turner, J., Oliveira, N., & Morton, A. (2019). Cancer in pregnancy. *Asia-Pacific Journal of Clinical Oncology*, *15*, 296–308.

Eleje, G. U., Eke, A. C., Igberase, G. O., Igwegbe, A. O., & Eleje, L. I. (2019). Palliative interventions for controlling vaginal bleeding in advanced cervical cancer. *Cochrane Database of Systematic Reviews*, *3*(3), CD011000. https://doi.org/10.1002/14651858.CD011000.pub3

Falcaro, M., Castañon, A., Ndlela, B., Checchi, M., Soldan, K., Lopez-Bernal, J., Elliss-Brookes, L., & Sasieni, P. (2021). The effects of the national HPV vaccination programme in England, UK, on cervical cancer and grade 3 cervical intraepithelial neoplasia incidence: A register-based observational study. *The Lancet*, *398*, 2084–2092.

Fontham, E. T., Wolf, A. M., Church, T. R., Etzioni, R., Flowers, C. R., Herzig, A., Guerra, C. E., Oeffinger, K. C., Shih, Y. T., Walter, L. C., Kim, J. J., Andrews, K. S., DeSantis, C. E., Fedewa, S. A., Manassaram-Baptiste, D., Saslow, D., Wender, R. C., & Smith, R. A. (2020). Cervical cancer screening for individuals at average risk: 2020 guideline update from the American Cancer Society. *CA: A Cancer Journal for Clinicians*, *70*, 321–346.

Haręża, D. A., Wilczyński, J. R., & Paradowska, E. (2022). Human papillomaviruses as infectious agents in gynecological cancers. Oncogenic properties of viral proteins. *International Journal of Molecular Sciences*, *23*, 1818.

He, Z., Xie, C., Qi, X., Hu, Z., & He, Y. (2022). The effect of preserving pregnancy in cervical cancer diagnosed during pregnancy: A retrospective study. *BMC Women's Health*, *22*, 314.

HOGI. (2018). *Pedoman Nasional Pelayanan Kedokteran Kanker Ginekologi*.

Hooda, R., Baghla, N., Malik, N., & Kaushik, S. (2022). To evaluate the role of placental human papilloma virus (HPV) infection as a risk factor for spontaneous preterm birth: A prospective case control study. *Journal of Perinatal Medicine*, *50*, 427–432.

Hoveyda, F., & MacKenzie, I. Z. (2001). Secondary postpartum haemorrhage: Incidence, morbidity and current management. *BJOG*, *108*, 927–930.

Johnson, C. A., James, D., Marzan, A., & Armaos, M. (2019). Cervical cancer: An overview of pathophysiology and management. *Seminars in Oncology Nursing*, *35*, 166–174.

King, P. A., Duthie, S. J., Dong, Z. G., & Ma, H. K. (1989). Secondary postpartum haemorrhage. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, *29*, 394–398.

Kjaer, S. K., Dehlendorff, C., Belmonte, F., & Baandrup, L. (2021). Real-world effectiveness of human papillomavirus vaccination against cervical cancer. *Journal of the National Cancer Institute*, *113*, 1329–1335.

Lei, J., Ploner, A., Elfström, K. M., Wang, J., Roth, A., Fang, F., Sundström, K., Dillner, J., & Sparén, P. (2020). HPV vaccination and the risk of invasive cervical cancer. *New England Journal of Medicine*, *383*, 1340–1348.

Maharani, S. D. (2017). *Gambaran tingkat pengetahuan perempuan usia reproduktif tentang deteksi dini kanker serviks di Puskesmas Pisangan Ciputat Tangerang Selatan* [Skripsi tidak dipublikasikan]. Jakarta.

Olejniczak, L., & Zasowska-Nowak, A. (2023). The management of vaginal bleeding in advanced cervical cancer. *Medycyna Paliatywna*, *15*(3), 93–99.

Pawlus, B., Zwolinski, J., Koneczna, U., Pawlus, G., & Kordek, A. (2023). Neonatal outcomes for women diagnosed with cancer during pregnancy—Single-center study. *Ginekologia Polska*.

Petca, A., Niculae, L. E., Tocariu, R., Nodiți, A. R., Petca, R. C., & Rotar, I. C. (2025). Evaluating offspring after pregnancy-associated cancer: A systematic review of neonatal outcomes. *Cancers*, *17*, 299.

Putri, Y., & Wiranegara, G. (2022, April 28). Treatment approach for a rare case of cervical cancer in pregnancy: Pendekatan terapi pada kanker serviks dalam kehamilan. *Indonesian Journal of Obstetrics and Gynecology*, 107–111.

Rolston, K. V. I. (2017). Infections in cancer patients with solid tumors: A review. *Infectious Diseases and Therapy*, *6*, 69–83.

Tsikouras, P., Zervoudis, S., Manav, B., Tomara, E., Iatrakis, G., Romanidis, C., Bothou, A., & Galazios, G. (2016). Cervical cancer: Screening, diagnosis and staging. *Journal of BUON*, *21*, 320–325.

Wong, J. W. H., Sperling, M. M., Harvey, S. A., Killeen, J. L., & Carney, M. E. (2020). A fight-and-flight for life: A rare case of advanced cervical cancer in pregnancy. *Gynecologic Oncology Reports*, *32*, 100565. https://www.sciencedirect.com/science/article/pii/S235257892030031X

Yennurajalingam, S. (2009). Hemorrhage. In E. Bruera, I. Higginson, C. Ripamonti, & C. von Gunten (Eds.), *Textbook of palliative medicine* (2nd ed., pp. 808–816). CRC Press.

Zhang, S., Xu, H., Zhang, L., & Qiao, Y. (2020). Cervical cancer: Epidemiology, risk factors and screening. *Chinese Journal of Cancer Research*, *32*, 720–728.