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CASE REPORT
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Pregnancy with Cervical Cancer Stage III B

Hermin Sabaruddin, Ruth Widhiati Raharjo Putri, Bambang Abimanyu, M. Robyanoor Ahyadi Radam, Ferry Armanza, Hariadi Yuseran, Setyo Teguh Waluyo, Iwan Darma Putra, Pribakti Budinurdjaja, Agatha Vamela

Department of Obstetrics and Gynecology, Faculty of Medicine and Health Sciences, Universitas Lambung Mangkurat, Banjarmasin, Indonesia
Coresspondence Author: agatha.vamela@yahoo.com

Abstract:

The most common gynecological malignant tumors in pregnancy are cervical cancer, accounting for 71.6%, followed by ovarian malignant tumors, accounting for 7.0%. During pregnancy, gynecological examination is limited, and therefore, the rate of misdiagnosis is higher. Estimated incidence of 0.8 to 1.5 cases per 10 000 births. Estrogen, progesterone and human chorionic gonadotropin during pregnancy has positive correlation with HPV 16 and HPV 18 infections, besides that increased vascularization and lymphatic circulation in the cervical region pregnancy showed increased development of cervical cancer. The treatment of cervical cancer during pregnancy is related to many factors, such as tumor size, pathological type, period of gestation, lymph node involvement, and fertility sparing. This case report aims to discuss the diagnostic challenges, etiology, management strategies, and outcomes associated with the condition of pregnancy with cervical cancer. A woman, 36 years old, 36-37 weeks gestational pregnancy, came to outpatient at Ulin Hospital, Banjarmasin with not in labor. During antenatal care the patient wes complained of vaginal bleeding at 12 weeks gestational was told to have a low-lying placenta but bleeding continued and became increased severe until 5xpads/day and received blood transfusion and then underwent a cervical biopsy examination for result of adenocarcinoma. Patient was evaluated staging oncogynecologist with diagnosis cervical cancer IIIB and suggested to chemotherapy at 28 weeks gestational age (early May 2024) but patient refused. Then patient had evaluated US MFM result Fetal, Single, Live, Intra Uterine, Cephalic Presentation, Gestational Age ~35-36 weeks , placenta implantation in corpus posterior Gr II- III with sufficient amniotic fluid. Hypohyperechoic mass size 7.93 x 6.47 cm in cervical region suggest to ca cervix. Patients suggest to mode of delivery perabdominal and treatment ca cervix according to oncogynecologist. Pregnancy with cervical cancer is not typical and resembles other diseases in pregnancy. Some researchers say that pregnancy accelerates the occurrence of metastasis and cancer development. This causes increased vascularization and lymphatic circulation in the cervix which indicates pregnancy promotes the development of cervical cancer as well as estrogen, progesterone and HCG levels which prevent infection with HPV 16 and 18. It is safe to confirm cervical cancer with high lesions using cervical biopsy . Management of pregnancy with cervical cancer according to mass size, histology results, gestational age and fertility-saving staging.

Keywords: Cervical cancer; CS; Pregnancy

Introduction

Cervical cancer is one of the most common malignancies in pregnancy, with an estimated incidence of 0.8 to 1.5 cases per 10 000 births.Wwhether pregnancy can accelerate the progression of cancer is still controversial. Some scholars have found that the levels of estrogen, progesterone, and human chorionic gonadotropin during pregnancy are positively correlated with human papillomavirus (HPV) 16 and HPV 18 infection, which indirectly suggests that pregnancy may promote the progression of cervical cancer. Some studies have shown that the lymphatic circulation and blood flow of the reproductive organs of pregnant women increases, the immunity of the body decreases in the early stages of pregnancy and cervical dilation after delivery, and other factors may accelerate the metastasis of tumors, thereby accelerating the development of cervical cancer. Cervical cancer generally requires a multidisciplinary team, and the principles of treatment are the same as cervical cancer during non-pregnancy. Cases diagnosed before 16-20 weeks should immediately receive therapy with surgery or chemoradiation. When pregnancy enters the second and third trimester, surgery and chemotherapy can be given in certain cases while maintaining the pregnancy.[1,2,3]

If the diagnosis is made above 20 weeks, delay of therapy is an option in stages IA2 and IB1 without any compromise in prognosis compared to non-pregnant women. When the fetus is declared viable, therapy with classical CS followed by radical hysterectomy can be performed (generally < 34 weeks of gestation).[4,5]

In more advanced stages, it is not known whether delaying therapy will affect survival. If delaying therapy is planned in women with locally advanced disease, neoadjuvant chemotherapy can be given to prevent disease progression.[6]

In the majority (89.7%), delivery was iatrogenic. Complications of preterm birth have been well studied and include intraventricularhemorrhage,bradycardia/apnea, need for respiratory assistance, necrosis, enterocolitis, sepsis, seizures, hypoglycemia, and feeding problems. Recently Bastek et al. 18 showed that late preterm infants (34 to 37 weeks) had more medical complications than term infants. In addition to these direct effects, preterm birth is also associated with long-term morbidity and cognitive and behavioral impairments. 19 In this study, neonatal problems were mainly due to iatrogenic prematurity and therefore were preventable. Premature can be prevented by delaying or continuing treatment until full-term delivery is achieved.[3,7,8]

Intentional delay of therapy to achieve fetal maturity appears to be a safe option for patients with early-stage disease. For early-stage breast cancer, Cold et al20 described the results of a series of 7,501 patients and concluded that there was no evidence of a survival benefit from early initiation of adjuvant chemotherapy in the first 2 to 3 months after surgery. Nettleton et al21 presented a mathematical model to quantify the risk of axillary lymph node metastases from delayed breast cancer treatment during pregnancy. They calculated that the daily increase in risk of axillary metastases from delayed treatment was 0.028% for tumors with an intermediate doubling time of 130 days and 0.057% for tumors with a rapid doubling time of 65 days. They concluded that this minimal maternal risk may be acceptable to some women in their third trimester of pregnancy with early breast cancer.21 Duggan et al22 described planned delay in patients with stage IA and IB cervical cancer with a mean diagnosis-to-treatment interval of 144 days (range, 53 to 212 days). All these patients were disease-free after a mean follow-up period of 23 months.[9,10]

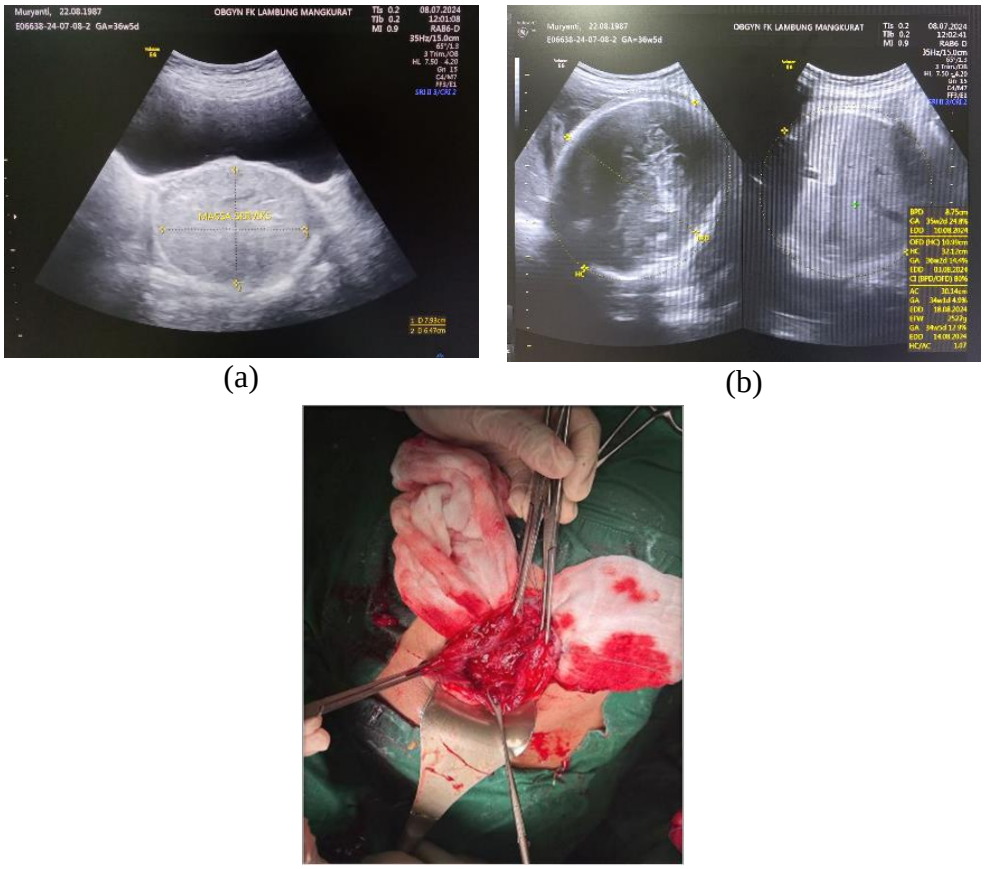
Continuing treatment initiated during pregnancy is a second way to prevent prematurity. Until recently, treatment during pregnancy continued until fetal viability was achieved. Instead, fetal maturity should be the criterion for inducing labor. In a multidisciplinary setting, maximum efforts should be made to delay labor until at least 35 to 37 weeks.[9,10]

Case Illustration

Mrs. M, 36 years old, came to the obstetrics and gynecology clinic 9 months pregnant with complaints of tightness (-), discharge of blood mucus (-), discharge of water (-). Fetal movement (+) Active. Currently vaginal bleeding (-), Riw Vaginal discharge (+) yellow with a foul odor since 6 months. In January 2024: The patient initially complained of vaginal bleeding (+) intermittent and fresh red in color, changing pads 1x/day and an examination was carried out in March 2024 and it was said that the placenta was located low and there was a cervical polyp. March 2024: The patient with vaginal bleeding changed diapers 3x/day for 5 days and was treated at Bunda Plaihari Hospital, Hb was found to be 7g/dl and received a 1-colf transfusion. Then a cervical

obtained, and chemotherapy was recommended at 28 weeks of gestation, but the patient refused the reason for negotiation. The patient underwent an USG Spv Fetomaternal conclusion: fetus, single, preskep, according to gestational age 35-36 weeks, placenta Implantation in the corpus posterior Gr II-III with sufficient amniotic fluid with a hypohyperechoic image measuring 7.93x6.47 cm, an impression of cervical mass and Pro termination of pregnancy Mode of Delivery perabdominam and chemoradiation plan/external radiation according to the Oncogynecology Spv according to the management of Cervical Cancerbiopsy was performed. Vaginal bleeding was still felt but had decreased. In April 2024: The patient received the results of PA Adenocarcinoma and was advised at Ulin Hospital and an evaluation of the Oncogynecology Spv was carried out and staging was carried out, stage III B was

On examination at PONEK, vital signs were found to be within normal limits. Leopard examination found LI: felt round, soft, LII: left felt hard elongated, LIII: round, hard, LIV: Convergent TFU: 29 cm TBJ: 2635 gr His: (-), DJJ: 141 Inspection: portio appears fragile, easily bleeding, flx (-), flr (-), exophytic mass 2x3 cm, VT: Portio felt closed, portio hunched, easily bleeding, fluxus (-), flour (-), exophytic mass 2x3 cm Uterine cavity: AF ~ Gravid ~ 36 wga adnexa dextra sinistra: Mass (-), Stiff parametrium, no abnormalities in cavum dauglas, Rectal toucher: CFS 50%/CFS 50%. Then the patient was diagnosed with G4P3A1 H 36-37 wga + Singleton pregnancy + Not In labor + Cervical cancer stage III B + EFW 2635g . The patient underwent a CS with a corporil incision to give birth to a baby Female/2550 gr/47 cm/AS 7-8-9.



(a) (b)

(c)

Figure 1. (a) US Mass cervical region (b) US Fetal Biometry (c) Mass Cervical region: Duration operative

Discussion

Case report of womanA 36-year-old woman came to the obstetrics and gynecology clinic at 9 months pregnant with complaints of tightness (-), discharge of blood mucus (-), discharge of water (-). Fetal movement (+) Active. Initially, the patient complained of vaginal discharge (+) yellow with a foul odor since 6 months accompanied by vaginal bleeding that came and went in the first trimester. The incidence of gynecological cancer in pregnancy increases with parity and age during pregnancy. The most common gynecological malignant tumor in pregnancy is cervical cancer at 71.6%, followed by malignant ovarian tumors at 7.0%. The incidence of cervical cancer in pregnancy itself is not too high, and the symptoms resemble other diseases in pregnancy. During pregnancy, gynecological examinations are limited, so the rate of misdiagnosis is higher. The patient underwent a cervical biopsy with the conclusion of adenocarcinoma. Cervical biopsy is performed for suspected high-risk cervical lesions with speculum. Cervical biopsy will not increase the incidence of pregnancy complications, abortion rates, and premature birth rates, but curettage of the cervical canal during pregnancy will increase the abortion rate and premature birth rates. To minimize this risk, some experts suggest that the biopsy depth should be less than 1 cm, and the biopsy should not be too large, so that bleeding can be easily stopped. Adenocarcinoma accounts for 10-25% of all cervical cancer cases. Adenocarcinoma accounts for 25% of all cervical cancers. Clinically, adenocarcinoma of the uterine cervix can be asymptomatic or can appear with abnormal bleeding or vaginal discharge like squamous cell carcinoma.

The patient has undergone evaluation of Spv Onkogynecology and staging with cervical cancer stage III B and was advised chemoradiation/external radiation at 28 weeks of pregnancy but the patient refused. Several studies have reported that adenocarcinoma has a greater tendency towards lymph node, ovarian and distant metastasis compared to squamous cell carcinoma. Chemotherapy is recommended in advanced stages (II B-IVB) andrecommended to be given at 20-30 weeks of pregnancy. Routine one-cycle chemotherapy and drug discontinuation are performed 3 weeks before the estimated delivery date to avoid problems related to bone marrow suppression (bleeding, infection, and anemia) and to avoid accumulation of cytotoxic drugs in the neonate.[3,5]

Patients receiving chemotherapy are at increased risk of preterm delivery. However, the time interval between chemotherapy administration and onset of contractions is highly variable. The underlying mechanism is unclear. Physical or psychological stress may induce preterm delivery through activation of the maternal hypothalamic-pituitary-adrenal axis;27-29 thus, stress associated with the diagnosis and treatment of cancer may contribute. Alternatively, fetal stress or uteroplacental vasculopathy may activate the fetal hypothalamic-pituitary-adrenal axis and induce labor.30 The potential role of chemotherapy in preterm delivery requires further investigation. Apoptosis of the amniotic epithelial layer and chorionic trophoblast of the fetal membranes is known to be an important factor in the pathogenesis of rupture of the membranes.31,32 This process may theoretically be facilitated by exposure to chemotherapy. It is accepted that termination of pregnancy is indicated in cases of poor maternal prognosis or when there is an urgent need for cytotoxic treatment in the first trimester.[5,6]

The patient has been evaluated for Spv fetomaternal and advised mode of delivery with caesarean section. Cesarean section can be performed at 36-37 weeks of gestation to terminate the pregnancy, and postpartum surgery or radiotherapy and chemotherapy can be given to treat cervical cancer. The patient has undergone CS Corporil and delivered a baby Female/2550 gr/47 cm/AS 7-8-9. Corporil incision can reduce bleeding and avoid blood vessel damage due to tumor while SBR incision should be avoided because of the risk of tumor being cut or torn[3,6,10]

Conclusions

The diagnosis of pregnancy with cervical cancer is not typical and resembles other diseases in pregnancy. Some researchers say that pregnancy accelerates the occurrence of metastasis and cancer development. This is due to increased vascularization and lymphatic circulation in the cervix which indicates that pregnancy encourages the development of cervical cancer and estrogen, progesterone and HCG levels are correlated with HPV 16 and 18 infections. The diagnosis of cervical cancer with high suspicion of lesions is safe using cervical biopsy. Management of pregnancy with cervical cancer according to mass size, histology results, gestational age and fertility sparing staging.[3,5,8]

References

1. Nguyen C, Montz FJ, Bristow RE.2000 Management of stage I cervical cancer in pregnancy. Obstet Gynecol Surv. 2000;55:633.
2. Creasman WT. Cancer and pregnancy. Ann NY Acad Sci. 2001;943:281.
3. Smith LH, Dalrymple JL, Leiserowitz GS, Danielsen B, Gilbert WM. Obstetrical deliveries associated with maternal malignancy in California, 1992 through

1997. Am J Obstet Gynecol. 2001;184:1504
4. Smith LH, Danielsen B, Allen ME, Cress R. Cancer associated with obstetric delivery: results of linkage with the California cancer registry. Am J Obstet Gynecol. 2003;189:1128.
5. Demeter A, Sziller I, Csapó Z, et al. Outcome of pregnancies after cold-knife conization of the uterine cervix during pregnancy. Eur J Gynaecol Oncol. 2002;23:207.
6. Duggan B, Muderspach LI, Roman LD, et al. Cervical cancer in pregnancy: reporting on planned delay in therapy. Obstet Gynecol. 1993;82:598.
7. Shiping Z, Lushan ZQ, et al. Progress in diagnosis and treatment of pregnancy complicated with cervical cancer. J Pract Med. 2018;25(4):400-402.
8. Meihao OG. The effect of pregnancy with cervical cancer on mother and child and the principles of diagnosis and treatment. Adv Modern Obstetr Gynecol. 2008;17(1):64-66
9. HOGI. Pedoman Nasional Pelayanan Kedokteran Kanker Gibnekologi Indonesia, 2018
10. Kristel Van Calsteren, Liesbeth Heyns, Frank De Smet, et al , Cancer During Pregnancy: An Analysis of 215 Patients that Emphasizes Obstetric and Neonatal Outcomes, Obstetrics and Gynecology, Universie Catholique de Louvain, Louvain-la-Neuve, Belgium; Department of Medical Oncology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands; Department, Obstetrics and Gynecology, University, Charles, Prague, Czech Republic, 2010:28: 03