

Chapter 9 Management of Cervical Cancer Complicating Pregnancy

Overview

In recent years, cervical cancer is being seen increasingly often in younger women. More cervical cancer is detected during pregnancy due to women becoming pregnant later in their lives, in turn the result of later marriage.

The basic treatment strategy is the same as for non-pregnant women. However, the treating institution must provide individualized management depending on clinical stage, weeks of gestation, and the patient's desire to continue the pregnancy.

If the cancer is at an early stage, concurrent cervical cancer treatment and continuation of pregnancy is possible in many cases.

For advanced cancer, the management will differ depending on whether or not the fetus is at a stage in which it is viable outside the uterus. If the fetus is sufficiently developed, treatment for cervical cancer is promptly performed as soon as the mother delivers the fetus. If the fetus has not reached such a stage, the maternal life should be given priority, and the cancer treated.

In recent years, neonatal medicine has rapidly advanced, and social values have become diversified. Accordingly, even if a cancer is found at a stage when the fetus is not viable outside the uterus, some patients and their families have a strong desire to wait to begin treatment until it is viable. There is no consensus on the allowable waiting period, and at present treatment should only be delayed with caution.

CQ33

How should cervical cancer complicating pregnancy be managed?

Recommendations

- (1) Cone biopsy may be delayed until after delivery as long as a microinvasive or more advanced lesion is not suspected on the results of cytology, colposcopy, or biopsy (Grade C).
 - (2) If stage Ia disease is suspected, cervical cone biopsy should be performed to determine the diagnosis (Grade B).
 - (3) If hysterectomy is necessary for \geq stage Ia disease, treatment and its timing is tailored to the individual (Grade B).
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Background and Objectives

We examined diagnosis, treatment, and outcomes for stage 0, Ia, and Ib cervical cancer diagnosed during pregnancy.

Explanations

Three percent of cervical cancers are diagnosed during pregnancy.¹ Many cervical cancers detected during pregnancy are at stage 0 or Ia.² Outcomes for these patients are the same as for non-pregnant patients.^{3,4} Many asymptomatic cases are diagnosed from abnormal cytology.⁵

1) Diagnosis

Colposcopy should be performed if a lesion is diagnosed as dysplasia or worse in cytology.⁶⁻⁸ Cervical cone biopsy should be performed if a stage I lesion is suspected at cytology, colposcopy, or biopsy. Cytology during pregnancy is often performed using a cotton swab to avoid hemorrhaging. Visibility may be poor during colposcopy due to hemorrhage from acetic acid washing. Biopsy specimens cannot be obtained as deeply or in as large an amount as for non-pregnant patients. Therefore, lesions tends to be underestimated. If there is any suspicion of a microinvasive or more advanced cancer, cone biopsy must be performed without hesitation. When performing a cone biopsy on a pregnant patient, it is desirable to resect as minimally as possible, to minimise the risk of hemorrhage, miscarriage, or premature birth due to a deep and extensive resection. If the patient wishes to continue the pregnancy, curettage is contraindicated in the cervical canal. If cone biopsy is performed, concurrent cervical cerclage is sometimes performed to prevent miscarriage or premature birth, although there is no consensus on its effectiveness.⁹

2) Treatment

(1) Stage 0 disease

Cone biopsy during pregnancy increases the risk of intraoperative and postoperative hemorrhaging, and the risk of miscarriage or premature birth. Cone biopsy

may be delayed until after delivery as long as a microinvasive or more advanced lesion is not suspected on the results of cytology, colposcopy, or biopsy.^{10,11} In such cases, it is essential to have a comprehensive diagnosis and careful follow-up until delivery at an institution capable of performing appropriate cytology, colposcopy, or biopsy.

(2) Stage Ia or more advanced cancer

If the results of cervical cone biopsy show that the patient has stage Ia disease, in which uterine preservation is possible (see CQ03), cervical cone biopsy alone can be performed followed by careful monitoring. For a treatment strategy requiring hysterectomy, the treating institution must provide individualized management depending on clinical stage, weeks of gestation, and the patient's desire to continue the pregnancy.

i) If there is no desire to continue pregnancy

The pregnancy should be terminated as soon as possible. Following termination, treatment for cervical cancer is the same as in non-pregnant patients.

ii) If the fetus is at a stage where it is viable outside the uterus

If the cone biopsy result show that uterine preservation is possible, delivery can be induced unless there is an obstetric reason to the contrary. The subjects for this treatment have stage Ia1 disease, without vascular or lymphatic infiltration, local invasion, or residual cancer. For patients who require hysterectomy, there has not been any consensus on the delivery method. Vaginal delivery can negatively affect quality of life (QOL) and the outcome due to tumor hemorrhage and dissemination to the site of a perineal tear or episiotomy.¹²⁻¹⁴ Many institutions perform radical surgery at the time of delivery by Cesarean section.

iii) If the patient strongly desires to continue the pregnancy but the fetus is not viable outside the uterus

If the patient strongly desires to continue the pregnancy, delaying the commencement of cervical cancer treatment can be considered. One study found that the outcome is not worsened by delaying the treatment until the fetus is viable outside of the uterus, although deaths have also been reported due to delaying treatment. Caution is therefore required in delaying treatment.¹⁵⁻¹⁸ Regarding the timing of treatment after delivery, the American College of Obstetricians and Gynecologists (ACOG) stated that treatment should be performed within 6 weeks of delivery,¹⁹ although a general consensus has not been reached.

(3) Inoperable advanced cancer

As a general rule, the pregnancy should be terminated as soon as possible, and treatment commenced. In two studies, advanced cervical cancer was found in patients who strongly desired to continue their pregnancy, although the fetuses were not viable outside the uterus. First, chemotherapy was used to treat the cancer, then after delivery radical treatment was performed. However, these were only case reports.^{20,21}

(4) Differentiation of histologic types

There is no evidence to support differentiation between adenocarcinoma and squamous cell carcinoma, even during pregnancy.²² If adenocarcinoma in situ is diagnosed at biopsy, however, it is difficult to assess the location or depth of invasion of the lesion at colposcopy. Cone biopsy should be performed to provide an accurate diagnosis.