



REVIEW ARTICLE

DIFFERENT ANAESTHESIA DOSAGES FOR WOMEN WITH CERVICAL CANCER DURING PREGNANCY

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ABSTRACT

Cervical cancer is cancer of the cervix, the opening to the uterus. It is caused by HPV (Human papillomavirus) infection. HPV is sexually transmitted; it's also extremely common. Most women get HPV at some point in their lives, but most clear the infection in a couple of years without any problems. If the cancer is caught at an early stage, it is monitored throughout the pregnancy and treating it after the birth of the baby. However, if the cancer is more advanced, it will need to be removed and that involves removing tissue from the cervix, which holds uterus shut during pregnancy. Sometimes, it becomes necessary treat cervical cancer during pregnancy by shaving off cells on the cervix. That can usually be done while maintaining the pregnancy.

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INTRODUCTION

Although cancer treatment can cause infertility in both men and women, if the sperm and ova are viable enough to result in a pregnancy, the baby is unlikely to suffer from congenital defects caused by the sperm and ova's exposure to chemotherapy and radiation therapy. Even though chemotherapy and radiation therapy can cause changes in germ cell DNA, most such changes are not viable, yielding only a slightly increased risk of birth defects. The primary source of concern is exposure of the fetus to the cancer treatment. Fetuses exposed to chemotherapy during the first trimester are at significantly increased risk of birth defects, because the fetus is exposed to chemotherapy at a critical stage of development. Fetuses should not be exposed to hormone therapy for the duration of the pregnancy and should be shielded from radiation therapy. Women receiving chemotherapy should not breast-feed, as the drugs can pass in breast milk. Cancer patients are advised to use birth control for the duration of chemotherapy and for several months afterward. (Barrier methods of birth control, such as condoms, are preferred since chemotherapy and hormone therapy can interfere with the effectiveness of hormone-based contraception such as the pill. In addition, some forms of chemotherapy can transfer to your partner through semen and vaginal fluids, although the dose involved is usually very low.)

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If a woman becomes pregnant while she is receiving chemotherapy, she may need to terminate the pregnancy. Women who may be pregnant should inform their oncologist before starting chemotherapy, hormone therapy or radiation therapy. Occasionally, a pregnant woman will be diagnosed with cancer, such as breast cancer, leukemia or lymphoma, and will need to undergo chemotherapy, hormone therapy or radiation therapy. This is pretty rare, affecting anywhere from 1 in 2,500 to 1 in 10,000 pregnancies.

Cervical Cancer

Cervical cancer is a very slow-growing cancer that progresses through a series of precancerous stages before becoming full-blown cancer.

Early cervical cancer often doesn't have any noticeable signs or symptoms. Late symptoms include:

- Vaginal bleeding
- Pelvic pain and
- Pain during intercourse.

Concerns during Pregnancy

Data collected from women of Denmark from 1978 to 1992 (Nybo Andersen-2000) show that the most ideal age range for a woman to have children is in her 20's.

Table 1. The staging comparison of cervical cancer in pregnant women versus non pregnant women

Staging	Pregnant	Non-pregnant
Stage I	70-80%	42%
Stage II	11-20%	35%
Stage III	3-8%	21%
Stage IV	0-3%	2%

Increasing maternal age is strongly associated with increased chance of miscarriage or ectopic pregnancy.

Factors other than age predisposing to miscarriage are:

- A history of previous miscarriage is associated with increased chance of miscarriage in a subsequent pregnancy.
- Alcohol abuse during pregnancy
- Psychological stress during pregnancy

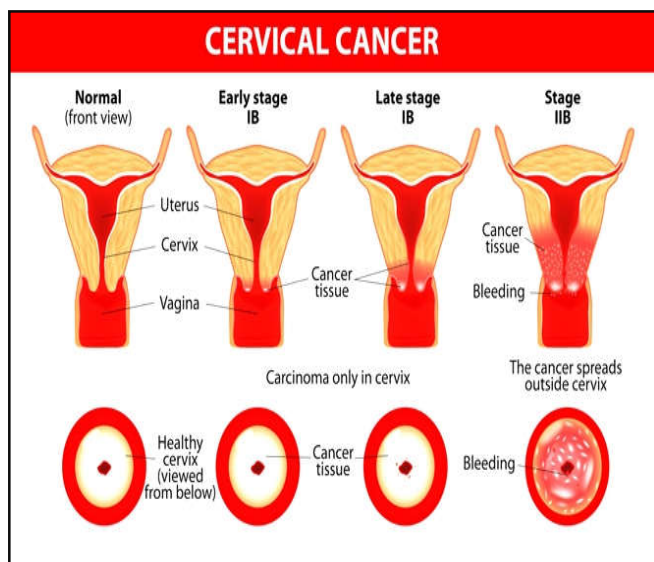


Figure 1. Showing the various stages in cervical cancer

Presence of anaesthetic gases and its effects during pregnancy

- Most of the women exposed to the stressful environment of operating theatres belong to the younger age group and are in their reproductive age which is supposed to be the healthiest stage to conceive.
- But the data shows there is about a 10% chance of miscarriage and a 3% chance of giving birth to a child with a birth deficit. This means that in any operating theater complex where many women work, one or more of these women will certainly experience a miscarriage or give birth to a child with a birth defect.

Treatment

If the cancer is caught at an early stage, it is monitored throughout the pregnancy and treating it after the birth of the baby. However, if the cancer is more advanced, it will need to be removed and that involves removing tissue from the cervix, which holds uterus shut during pregnancy. Sometimes, it becomes necessary to treat cervical cancer during pregnancy by shaving off cells on the cervix. That can usually be done while maintaining the pregnancy. The biggest concern of treatment is that it could cause preterm labor and preterm delivery. In very rare cases, if the cancer is very advanced the mother and doctor may have to make the difficult decision to treat the cancer at the expense of the body.

Prevention

It can be prevented by getting annual Pap smears. If precancerous cells are caught and treated early, one may avoid cervical cancer altogether. A Pap smear screens for cancer and precancerous changes of the cervix. If a Pap smear finds signs of cancer, the doctor orders Colposcopy to take a closer look (A speculum is used to hold vagina open and make the cervix easy to see. Then the Doctor sprays a vinegar-based solution on the cervix; the solution makes it easier to see and evaluate any abnormalities via a special magnifying glass). The Doctor may also take samples and send them to the laboratory for diagnosis.

Cancer Survivors and Pregnancy

Most female cancer survivors should wait two years after the end of treatment before trying to have a baby. This is not just to allow for recovery of fertility, but because the greatest chance of a relapse is within the first two years after treatment. Waiting two years minimizes the likelihood that a female cancer survivor will need to terminate the pregnancy because of a relapse, or delay a resumption of treatment because of the pregnancy. Pregnancy does not increase the risk of a relapse among women who were previously treated for stage I or stage II breast cancer.

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