

Cancer Association of South Africa (CANSA)



Fact Sheet on Breast Cancer, Pregnancy and Breastfeeding

Introduction

To have breast cancer diagnosed during pregnancy is very rare. As more and more women choose to have children later in life, and the risk of breast cancer increases with age, doctors expect there will be more cases of breast cancer during pregnancy in the future.

In the United States of America, breast cancer is diagnosed in about one in every 3 000 pregnant women. Breast cancer is, however, the most common type of cancer found during pregnancy or while breastfeeding, immediately or within the first year after delivery.

[Picture Credit: Breastfeeding]



'Pregnancy-associated breast cancer' means the cancer is diagnosed while a woman is pregnant or during the first year after pregnancy. Women diagnosed with pregnancy-associated breast cancer were more likely to have later-stage breast cancer compared to the other women. This may be because pregnancy may make it harder to detect breast cancer symptoms. Pregnancy also may cause women to wait to get a mammogram.

Most women are able to carry on with their pregnancy. Rarely, some may need to think about whether to end the pregnancy (termination). But usually this is only necessary if one needs chemotherapy and are less than 14 weeks pregnant. Usually it is possible to delay chemotherapy treatment until after one has reached the 14 weeks stage of pregnancy.

In a pooled analysis of data from 47 studies, mothers who breastfed for a lifetime total of one year were slightly less likely to get breast cancer than those who never breastfed.



[Picture Credit: Benefits of Breastfeeding]

PDQ Adult Treatment Editorial Board. 2019.

“Overall survival of pregnant women with breast cancer may be worse than survival of nonpregnant women at all stages; however, this may be primarily the result of delayed diagnosis. Termination of pregnancy has not been shown to have any beneficial effect on breast cancer outcome and is not usually considered as a therapeutic option.”

Breast Cancer Diagnosis During Pregnancy

Women who are pregnant, nursing, or have just given birth usually have tender, swollen breasts. This can make small lumps difficult to detect and may lead to delays in diagnosing breast cancer. Because of these delays, cancers are often found at a later stage in these women.

To detect breast cancer, pregnant and nursing women should examine their breasts themselves. Women should also receive clinical breast examinations during their routine prenatal and postnatal examinations.

The following signs may be caused by breast cancer or by other conditions. Check with a health professional if any of the following are detected:

- A lump or thickening in or near the breast or in the underarm area
- A change in the size or shape of the breast
- A dimple or puckering in the skin of the breast
- A nipple turned inward into the breast
- Fluid, other than breast milk, from the nipple, especially if it is bloody
- Scaly, red, or swollen skin on the breast, nipple, or areola (the dark area of skin that is around the nipple)
- Dimples in the breast that looks like the skin of an orange, called *peau d'orange*.

A doctor should be seen if any changes in the breasts are noticed.

Breast Cancer Treatment During Pregnancy

Breast cancer treatment options for early/localised/ operable breast cancer and advanced stage breast cancer:

PDQ Adult Treatment Editorial Board. 2019.

“Generally, pregnant women with stage I or stage II breast cancer are treated in the same way as nonpregnant patients, with some modifications to protect the fetus.

“Treatment options for early/localized/operable breast cancer in pregnant women include the following:

“Surgery – postpartum radiation therapy may also be given to women diagnosed with breast cancer late in pregnancy.

Chemotherapy – after the first trimester

Endocrine therapy – after delivery.

“The use of trastuzumab during pregnancy is contraindicated.

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“There is no standard treatment for patients with advanced (stage III or stage IV) breast cancer during pregnancy. Most studies show a 5-year survival rate of 10% in pregnant patients with stage III or IV disease.

“First-trimester radiation therapy should be avoided. Chemotherapy may be given after the first trimester as discussed in the section above.

“Because the mother's life span may be limited, and there is a risk of fetal damage with treatment during the first trimester,^[1,2] issues regarding continuation of the pregnancy should be discussed with the patient and her family. Therapeutic abortion does not improve prognosis.”

What the Research Says About Breast Cancer and Other Cancers Diagnosis During Pregnancy

It is possible to be diagnosed with breast cancer during pregnancy, although it is rare. Breast cancer is not caused by the pregnancy. Women who are diagnosed with breast cancer during pregnancy have tremendous additional strain due to concern for the safety of the unborn child. It can be a traumatic and extremely difficult situation, but there is hope for both mother and child, thanks to the many treatment options available.

If one is pregnant and has been diagnosed with breast cancer, be sure to communicate carefully with the obstetric care team as well as the oncology team, and it never hurts to verify whether they have open communication with each other. The medical team will take extra care in designing a treatment plan that best controls the breast cancer while protecting the unborn child.

Eastwood-Wilshere, N., Turner, J., Oliveira, N. & Morton, A. 2019.

Cancer in pregnancy may be increasing in incidence with advancing maternal age and higher rates of obesity. The diagnosis of cancer in pregnancy provokes complex management issues balancing short- and long-term risks for both mother and baby. Every case needs to be individualized, with a multidisciplinary team of midwives, obstetricians, oncologists, surgeons, radiation oncologists, and neonatologists assisting the family to make informed decisions regarding the best treatment course for the mother and baby. The present article reviews the evidence regarding the safety of diagnostic imaging, procedures and treatment modalities for cancer for the pregnant woman and fetus. The efficacy of novel anticancer therapies highlight the need for International Registries to accumulate safety data for these agents in pregnancy as expeditiously as possible.

Perrone, A.M., Bovicelli, A., D’Andrilli, G., Borghese, G., Giordano, A. & De Iaco, P. 2019.

Cervical cancer is one of the most common gynecological malignancies diagnosed during pregnancy although, fortunately, it is a rare event. In majority of cases, the management of cervical cancer in pregnant women is not different from nonpregnant women and prognosis seems not compromised by pregnancy. The association between cancer and pregnancy appears to be a significant challenge for women and specialists and the decisions about therapy must be individualized and taken by a multidisciplinary team. This review is focused on cervical cancer in pregnancy. The aim is to discuss the diagnosis, potential biomarkers and molecular aspects, therapeutic approaches, and prognosis from intraepithelial cervical neoplasia to invasive cervical cancer (early and advanced stages) in different gestational ages. We provide an overview of the current literature regarding the treatment strategies of concurrent pregnancy and cervical cancer cases and we propose some clinical advices to help clinicians to manage this condition. A mention about the effects of the conservative therapy

(as conization) on fertility, the human papillomavirus vaccine in pregnant women and our center's experience with obstetrical and oncological outcomes are reported.

Simoes, E., Graf, J., Sokolov, A.N., Grischke, E.M., Hartkopf, A.D., Hahn, M., Weiss, M., Abele, H., Seeger, H. & Brucker, S.Y. (2018):

“Pregnancy-associated breast cancer (PABC) is considered the second most common malignancy affecting pregnancy. They suggest that maternal medical assessment at the beginning of and during further course of pregnancy should include a scrutinized thorough breast examination. Conveying/delivering special competences to monitor these high-risk pregnancies at the interface of oncological care should be considered an obligatory part of academic medical education, obstetrical training and interprofessional midwifery education.”

Danet, C., Araujo, M., Bos-Thompson, M.A., Portolan, G., Gautier, S., Vanlemmens, L., Bonenfant, S., Jonville-Béra, A.P., Cottin, J., Vial, T., Bavoux, F., Monstastruc, J.L., Damase-Michel, C., Benevent, J., Bourgeois-Mondon, I. & Lacroix, I. (2018).

“There is little data on the effects of cancer chemotherapy in pregnant women. The objective of this study was to describe pregnancy outcomes of women exposed to cancer chemotherapy, recorded in the French Terappel database.

“We performed a descriptive, prospective study of the pregnancies of women exposed to cancer chemotherapy recorded in Terappel between June 1984 and December 2016. Terappel is a French database that has recorded questions of health professionals and/or individuals at the Regional Pharmacovigilance Centres about drugs and pregnancy. For each question, pregnancies are monitored and the outcome is recorded in the database.

“In total, 75 questions about "anti-cancer drugs and pregnancy" received by 16 Regional Pharmacovigilance Centres between 1997 and 2016 were recorded in Terappel. Breast cancer accounted for 62.7% of the cases, followed by leukaemia (13.3%) and lymphoma (9.3%). Cyclophosphamide is the leading anti-cancer drug with 40.0% of exposed pregnant women, followed by 5-fluorouracil (34.7%), epirubicin (32.0%), tamoxifen (26.7%), and doxorubicin (16.0%). Among the 75 pregnancies, we observed 55 births with 57 children (73.3%) (two cases of twins), nine medical terminations of pregnancy (12.0%), six voluntary terminations of pregnancy (8.0%), three intrauterine foetal deaths (4.0%), and two miscarriages (2.7%). We found a malformation rate of 7.8%. Sixteen of 57 (28.1%) newborns developed one or more neonatal pathologies.

“Pregnancy of women taking anti-cancer drugs resulted in birth in 73% of cases. Nevertheless, pregnant women exposed to cancer chemotherapy remains at risk of malformations and neonatal conditions related to prematurity and drugs.”

Kobayashi, Y., Tabata, T., Omori, M., Kondo, E., Hirata, T., Yoshida, K., Sekine, M., Itakura, A., Enomoto, T. & Ikeda, T. (2018).

“In recent years, the incidence of malignant disease in pregnancy has been increasing, but there are few large-scale surveys of malignant disease in pregnancy in Japan. The aim of this study was to survey malignant disease occurring during pregnancy in Japan.

“Malignant disease in pregnancy was defined as diagnosis or treatment for malignant disease, except in situ carcinoma during pregnancy, or within 1-year postpartum. First, a primary survey questionnaire of the incidence of malignant disease in pregnancy and the number of deliveries over

the course of 2014 was sent to 510 medical centers in Japan. Second, the survey questionnaires on the incidence of malignant diseases in pregnancy were collected and analyzed in detail.

“Of the 510 medical centers, 411 (81%) responded to the survey. There were 215,372 deliveries and 189 incidents (0.09%) of malignant disease in pregnancy. Of the 189 patients with malignancy, 157 detailed responses about the patients were received. The most frequently encountered cancer types were cervical cancer (36%), breast cancer (24%), and ovarian cancer (15%). During the 2 years after delivery, 15 patients (1 with breast cancer, 2 with ovarian cancer, 3 with hematologic malignancy, 4 with intestinal cancer, and 5 with others) died of the disease; most of them had advanced disease. In particular, 88% of the patients with intestinal cancers at diagnosis had advanced disease, and half of them died of disease.

“In Japan, the most common malignancies in pregnancy in order of frequency are cervical cancer, breast cancer, and ovarian cancer. Early diagnosis and appropriate management of cancer during pregnancy are important for improving maternal and neonatal outcomes, because advanced diseases have a poor prognosis.”

Breastfeeding During Cancer Treatment

Most health professionals recommend that women who have just had babies and are about to be treated for breast cancer should stop (or not start) breastfeeding.

If surgery is planned, stopping breastfeeding will help reduce blood flow to the breasts and make them smaller. This can help with any possible surgery. It also helps to reduce the risk of infection in the breast(s) and can help avoid having breast milk collect in biopsy or surgery areas.

Many chemotherapy, hormone therapy, and targeted therapy drugs can enter breast milk and be passed on to the baby. Breastfeeding is, therefore, not recommended if the mother is getting chemotherapy, hormone therapy, or targeted therapy.

If one undergoes radioactive isotope therapy or chemotherapy, however, one must stop breastfeeding at least until the radioactive elements or medications are completely gone from the body. One can still nurse if one is having radiation therapy, but having had radiation therapy, will usually limit milk production in the affected breast.

In the event of any questions, such as when it might be safe to start breastfeeding, be sure to talk with a health care professional.

Islami, F., Liu, Y., Jemal, A., Zhou, J., Weiderpass, E., Colditz, G., Boffetta, P. & Weiss, M. (2015).

“Breastfeeding is inversely associated with overall risk of breast cancer. Our meta-analysis showed a protective effect of ever breastfeeding against hormone receptor-negative breast cancers, which are more common in younger women and generally have a poorer prognosis than other subtypes of breast cancer. The association between breastfeeding and receptor-positive breast cancers needs more investigation.”

Medical Disclaimer

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Susan G Komen

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