PREGNANCY AND BREAST CANCER .. A REAL MEDICAL DILEMMA !!!

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ABSTRACT:

Objectives: To present cases of breast cancer with pregnancy encountered at king Abdul-Aziz University Hospital.

Design: A retrospective study of cases of breast cancer in pregnancy.

Setting: King Abdul-Aziz University Hospital, Jeddah Saudi Arabia.

Subjects: The study population compromised 28478 deliveries in the period 2000-2006.

Results: During this period 10 cases of breast cancer in pregnancy were encountered in 28478 deliveries (1 in 2847). Patients age of patients varies from 25-40. Gestational age at diagnosis varies, with 3 cases diagnosed late at 27, 35, and 37 weeks of gestation. Surgery and chemotherapy were the primary treatment modalities.

Conclusion: Pregnancy and breast cancer is a medical dilemma. It is not only the difficulty in diagnosis but also the decision to continue the pregnancy, institute appropriate treatment and timing of delivery. There is both ethical and medical issue that needs to be thoroughly discussed with patient by an experienced team of obstetrician, surgeon and oncologists.

Key Words: Breast cancer, Pregnancy.

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Introduction:

Pregnancy and breast cancer is a medical dilemma. When pregnancy occurs, the patient becomes thrilled yet scared, while her obstetrician is faced with a therapeutic dilemma involving surgical, perinatal, obstetric, and possibly ethical issues. Because most physicians deal with this clinical situation so infrequently, we are presenting here cases seen in our hospital to share our experience and increase awareness to the issue of breast cancer in pregnancy. .

CASES AND RESULTS:

During the period from 2000-2006 we encountered 10 cases of breast cancer and pregnancy at King Abdul-Aziz University Hospital, Jeddah Saudi Arabia. Total number of deliveries during this time period was 28478 deliveries. Age of our patients varies from 25-40 ***(Table 1)***. Gestational age at diagnosis varies with 3 cases diagnosed late at 27,35and37 weeks of gestation. Surgery and Chemotherapy, mainly AC Adriamycin and cyclophosphamide were the primary treatment modalities. Seven cases required additional radiotherapy. The obstetric outcome is shown in ***(Table 2)***.

DISCUSSION:

Breast cancer is the malignancy most frequently diagnosed during pregnancy and lactation.[1,2]. Pregnancy-associated breast cancer is defined as the diagnosis of breast cancer during pregnancy or within 1 year post partum. Breast cancer diagnosed during pregnancy or lactation is relatively rare. It accounts for approximately 2% to 5% of newly diagnosed breast cancers in women [3,4]. In our series it is occurring in about 1 in 2847. According to our knowledge of the biology of breast cancer , a cancer manifesting itself during pregnancy begins months or even years before conception thus the association between pregnancy and breast cancer may be more coincidental than causal .

Modern society has led many women for personal and career motives, to delay in bringing up a family. As a result, a large number of women are embarking on their first pregnancy in their thirties and even forties. It is also possible that, with the generally improving results of cancer therapy, a number of women may conceive shortly after or even while they still receiving their treatment, and this is an important consideration. At the same time, with more awareness among patients and doctors and wider spread use of screening programmes, it is likely that more cases of breast cancer will be discovered during pregnancy. In our part of the world

An important factor is the observation that in Saudi Arabia, and probably among other regional countries, cases of breast cancer tends to presents at an earlier age, approximately more than a decade younger than their American or Western counterparts. This means that fertility and infertility issues are important issues to be considered when planning therapy of breast cancer[5,6]. Furthermore in our part of the world, and perhaps in many of the developing countries, pregnancy may be the first and only chance that a women would avail herself for medical checkup and examination. This emphasis the important role the Obstetricians and Gynecologists, in developing countries, of being the primary health care physicians for majority of women.

In our series four cases were encountered early in pregnancy while two late in pregnancy. Although termination of pregnancy was not shown to improve the overall prognosis yet three cases had termination in this series[7].

Delays in diagnosis are common ,with an average reported delay of 5 to 15 months from the onset of symptoms[8,9,10,11] . This is probably the primary, and perhaps the only reason for the generally late stages and hence worse prognosis for almost all patients with breast cancer diagnosed during pregnancy and lactation[12].

The physiological changes during pregnancy that normally makes the breast more tense and multinodular in consistency render early diagnosis rather difficult. Possible lumps are often ignored even when noticed by patients or physicians. The common advice in such cases is to await for further evaluation if it persists after delivery. In principle any dominant mass should be investigated, mammography carries negligible radiation exposure with proper shielding of the abdomen[13] and biopsy can be performed under local anesthesia.

Treatment of these cases is another challenge. Surgery is recommended as the primary treatment of breast cancer in pregnant women. If adjuvant chemotherapy is necessary, it should be not be given during the first trimester to avoid the risk of teratogenicity. During the second and third trimester apparently there are no reports of serious consequences[14] . Approximately 40% of infants exposed to chemotherapy in utero may have a low birth weight "LBW" [15].

In the present series three cases were LBW (weights 1.8,745 and 2 kg). In terms of specific systemic agents there is a considerable body of data addressing the use of anthracycline in pregnant women, and only a handful of case reports describing the use of taxanes, and reports confirms no increased risk if used outside the first trimester [16, 17]

Radiation therapy, if indicated, should be withheld until after delivery since it may be harmful to the fetus at any stage of development. Whenever it is obstetrically feasible, early induction of labor in the third trimester can be undertaken to expedite therapeutic intervention.

CONCLUSSION:

Pregnancy and breast cancer is a medical dilemma. It is not only the difficulty in diagnosis but also the decision to continue the pregnancy, institute appropriate treatment and timing of delivery. There is both ethical and medical issue that needs to be thoroughly discussed with patient by an experienced team of obstetrician, surgeon and oncologists.

In our part of the world obstetricians need to pay special attention to breast cancer in women being more likely to affects younger generation.

Table1: (summary of 10 cases of breast cancer in pregnancy)

Case No.	age	stage	surgery	chemo	radio
1	34	T2 N2 M0	+	+	+
2	40	-	+	+	-
3	29	T1 N1 M0	+	+	+
4	39	T1 N1 M0	+	+	+
5	35	T3 N0 M1	+	+	+
6	26	T2 N2 M0	+	+	+
7	28	T1 N1 M0	+	+	-
8	25	T3 N1 M0	+	+	+
9	38	T3 N0 M0	+	+	-
10	32	T2 N2 M0	+	+	-

Table2: Obstetrical outcome

No.	GP	GA at diag.	Delivery	Baby
1	G6 P2+3	6days before LMP	Termination	-
2	G6 P5	at 27wks At 37 wks	SVD at 34wks	1.8kg
3	G6P5	recurrence	induced at 38wks SVD	3.3kg
4	G5P4	at 35 wks	induced at 37wks SVD	3.8kg
5	G2P1	at 4 weeks	aborted at 4w	-
6	G4P2+1	recurr at 8w	LSCS at 28 wks	IUGR745gm
7	G4P3	recurr at 13 wks	Termination	-
8	G3P2	at 11wks	LSCS	3.9kg
9	G5P4	at 5-6wks	Termination	-
10	G4P2+1	at 8 wks	induces SVD	2kg

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