

Breast Cancer in Pregnancy - Our Experience with Six Patients in the University Hospital, Kuala Lumpur

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Summary

Presentation of breast cancer during pregnancy is a rare situation and one that requires a multidisciplinary approach involving an obstetrician, surgeon and oncologist. Management should be along the same principles as in non-pregnant patients and delay is not justifiable. Mastectomy and axillary clearance is the best option, followed by chemotherapy, which is safe after the first trimester. Radiation if required should be delayed until after delivery of the baby. We present here our experience with 6 patients who presented with breast cancer during pregnancy. Five patients refused any treatment until after delivery, while one underwent only a mastectomy and axillary clearance. The outcome was poor; all of them died between 14 months and 52 months. The poor outcome probably reflects the late stage at presentation in four of the patients (Stage 3 and 4) rather than the delay in treatment, while delay in treatment in the two who presented with early cancer (Stage 1 and 2) led to a more advanced stage after delivery.

Key Words: Breast cancer, Pregnancy, Outcome

Introduction

Breast cancer is the most common cancer in women in many parts of the world. The simultaneous appearance of breast cancer and pregnancy is relatively rare, and the incidence has been reported as 1 - 2% of breast cancer cases¹. With the current trend of postponing child-bearing to the mid-thirties, it is expected that the incidence of breast cancer diagnosed during pregnancy and lactation will increase.

This paper reports our experience of six patients with breast cancer who were diagnosed during pregnancy between 1993 and 1995 in the University Hospital Kuala Lumpur. Two hundred and sixty-six new cases of breast cancer were seen during the same period giving an incidence of 2.25%.

Results

The ages of the patients ranged from 28 to 45 years with a mean of 36.7 years and a median of 35 years (Table I). Half of them were primigravidas, while the rest had only one child before. They were seen at a gestation of 8 weeks to 32 weeks with a median of 27 weeks. In two of these patients, the breast cancer had been diagnosed before pregnancy, but the patients refused treatment and presented again when they became pregnant.

Four of these patients were clinically in late stage (Stage 3 and 4) at presentation. Only one patient had a mastectomy and axillary clearance during pregnancy, while the others refused any form of treatment until after the baby was born. None of the patients received chemotherapy and radiotherapy during pregnancy.

Table 1
Details of Patients Presenting with Breast Cancer During Pregnancy

No.	Age	Gravida	Duration of Pregnancy	Clinical Stage at Presentation	Treatment During Pregnancy	Stage after Delivery	Outcome
1	28	0	32 weeks	4	None	4	Died 14 m
2	31	1	29 weeks	1	None	2a	Died 39 m
3	34	1	30 weeks	3b	None	3b	Died 33 m
4	36	1	22 weeks	2a	None	3a	Died 42 m
5	42	0	25 weeks	3a	Mastectomy	4	Died 14 m
6	45	0	8 weeks	3b	None	4	Died 52 m

When staged again after delivery, five of the patients were in late stage (Stage 3 and 4). All of them received a combination of chemotherapy, radiotherapy and/or surgery. The histopathology showed infiltrating ductal carcinoma in all six cases. In three cases where grading and estrogen receptors were available, it was Grade 2 in two cases, Grade 3 in one case and ER negative in all three cases.

All these six cases eventually died between 14 months to 52 months with a median survival of 36 months.


Discussion

A 1943 publication by Haagensen and Stout stating that breast carcinoma developing during pregnancy and lactation was categorically inoperable, based on their experience with only 20 patients, all of whom died of their disease² has widely caused breast cancer during pregnancy to be viewed as having a poor prognosis. This pessimistic attitude persists today, although studies in the past 30 years have shown that the poor results are attributable to delay in diagnosis and reluctance to treat aggressively during pregnancy rather than to a detrimental effect of pregnancy itself^{3,4}. However, there are other studies that show that pregnancy was an independent and significant poor prognostic indicator in breast cancer^{5,6}. It must also be noted that young age (less than 40 years old) is associated with a poorer outcome⁷, and patients who present with breast cancer during pregnancy are in the younger age group.

Management of the patient with breast cancer during pregnancy should be the same as in their non-pregnant counterpart^{8,9,10}. We believe that there is no justification

in delaying treatment. Modified radical mastectomy is the best option in pregnant patients with Stage 1 or 2 and some Stage 3 cancers. Termination of pregnancy has not been shown to improve survival; however in the first trimester, if the patient is agreeable, it should be considered as it would allow full treatment to the mother. Radiation therapy should be avoided in all stages of pregnancy as it may cause complications to the fetus. Chemotherapy has been shown to be safe in the second and third trimesters, although it may be associated with intrauterine growth retardation and prematurity^{11,12}.

Although aggressive treatment during pregnancy is advocated, it is very difficult to persuade patients to undergo treatment once the risk to the fetus, however slight, is explained. In Malaysia, where sociocultural factors and traditional beliefs play a major role in the patient's decision, the patient is usually willing to sacrifice herself in order that her baby has the best chance of survival. In the six patients described, it was either a first or second pregnancy, hence the desire for the baby to be born healthy was strong. In two cases, the husband was the one who made the decision to delay treatment until after delivery of the baby. It may be argued that if a woman presents with an advanced breast cancer in pregnancy, as seen in the majority of our patients, the prognosis is grim even if she is not pregnant. However, if she presents with breast cancer in Stage 1 or 2, delay may increase the stage of disease after delivery, (as shown in our patients). It is this group of patients that we must try to persuade to undergo aggressive treatment during pregnancy. The poor outcome in our six patients reflects the late stage at presentation as well as the delay in treatment.

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