Tertiary Cancer Center Experience: Pregnancy-Associated Breast Cancer

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To the Editor,

Breast carcinoma that is diagnosed during pregnancy or within 1 year postpartum classified as pregnancy-associated breast cancer and it is the second most common malignancy associated with pregnancy accounting approximately 1 in 3,000 to 10,000 pregnancies.[1] Breast cancer during pregnancy is a very important clinical antitiy for not only the patient but also for unborn child especially when regarding treatment modalities. In literature, knowledge about pregnancy-associated breast cancer is limited to rectospective studies and case reports.

Here we are reporting clinicopathological charasteristics and treatment outcomes of pregnancy-associted breast cancer patients. We have looked rectospectively 2578 breast cancer patients who diagnosed in Hacettepe University Hospital between 2003 and 2012. Eight (0.3%) of those patients had pregnancy associated breast cancer.

The mean age of patients was 36 (30-43). Seven patients had invasive ductal carsinoma and one patient had tubular carsinoma. 6 of 8 patients had T2/T3 stage. Totally 6 patients were grade III and 3 patients were having metastatic tumors when they were first diagnosed. 5 of 8 patients were both positive for estrogen and progesterone receptors. 2 patient were cerbB2 positive (Table 1). 6 of 8 patients were undergone modified radical mastectomy and all of 8 patients had chemotherapy.

Table 1. Patient and tumor charasteristics

	Age	Diagnose time	Histology	Grade	ER/PR	HER2	pT	N	M
Patient 1	44	Pospartum 5.mo	IDC	III	-/-	+	2	N3-11\15	0
Patient 2	29	Pregnancy 4.mo	IDC	III	+/+	-	X	NX	1
Patient 3	36	Pregnancy 6.mo	IDC	III	-/-	-	3	N3-28\32	0
Patient 4	34	Pregnancy 6.mo	Tubular	I	+/+	-	1	N0-0\32	0
Patient 5	40	Pregnancy 7.mo	IDC	III	+/+	+	2	N0-0\26	0
Patient 6	35	Postpartum12.mo	IDC	II	+/+	-	2	NX-PN1-1\42	1
Patient 7	34	Pregnancy 7.mo	IDC-NON-BAZALOID	III	-/-	-	3	N0-0\19	1
Patient 8	38	Pregnancy 1.mo	IDC	III	+/+	-	2	CN2-pn0-0\8	0

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Table 2. Treatment characteristics

	Chemotherapy	CT-Protocol	Hormone	Radio therapy	Surgery therapy	Life status	Follow up
Patient 1	Adjuvant	CAF X4 Docetaxel X4 Herceptin x9	None	Yes	MRM	Alive	72
Patient 2	Metastatic	TAC X6 Lucrine X3	Tamoxifen X5	Yes		Alive	38
Patient 3	Adjuvant	TAC X6	None	Yes	MRM	Alive	35
Patient 4	Adjuvant	CMF X6	Tamoxifen	Yes	MRM	Alive	31
Patient 5	Adjuvant	Docetaxel X4 Herceptin X4 Docetaxel X4 Cphosphamid X4 Herceptin 1 year	Tamoxifen 9 mo Lucrine 9 mo	Yes		Alive	28
Patient 6	Metastatic	TAC X6 Lucrine X2	Tamoxifen X5	Yes	MRM	Alive	29
Patient 7	Metastatic	AC X4	None	Yes	MRM	Alive	18
Patient 8	Neoadjuvant	TAC X6 Capasitabine X6	Tamoxifen X5	Yes	MRM	Alive	15

One patient had neoadjuvant therapy, Four patient had TAC(6), 1 patient had AC(4), 1 patient had CMF(6), 1 patient had CAF(4), Docetaxel(4), 1 patient had taxoter protocol as treatment. All of patients had either antracycline or taxane based chemotherapy but only half of them had hormone receptor therapy (Table 2). Mean follow up was 33 months (15-72) and all patients were alive.

Pregnancy associated breast cancers makes only %5 of all breast cancer patients younger than 50 years of age. However they account for approximetly % 20 of all breast cancers seen before age 30.[1,2] The prevalance of breast cancer in pregnancy is still low but it is increasing due to delay in childbearing and wider use of screening. Tumor charasteristics of breast cancers in pregnancy are generally poor and they are usually have advanced stage.[3-5] In our study most of the patients were grade III and 3 of them were metatstatic at the time of diagnosis. Physicians must be aware of breast cancer when they encounter with a breast mass in a pregnant patient. In clinically suspicious cases, biopsy should be in mind as a diagnostic tool even if mammograpy or ultrasound is negative. Pregnant patients with breast cancer must be handled multidisciplinary with an oncologist and obstetrician.

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