

BREAST DISEASES PRESENTING DURING PREGNANCY AND LACTATION

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ABSTRACT

Objective To study the pattern of breast diseases presenting during pregnancy and lactation.

Study design Descriptive case series.

Place & Duration of study This study was conducted from January 2009 to January 2010 at Hamdard University Hospital, Burhani Hospital and Kutiyana Memon Hospital in Karachi where the authors practice.

Methodology Pregnant and / or lactating women presenting with complaints related to breast were included in the study. A detailed history and examination findings were recorded on a proforma. Professional liaison was maintained with obstetrician and oncologist during the treatment period. Investigations and given treatment were also recorded in all cases.

Results A total of 43 patients between 16 years to 40 years were included in the study, out of which 11 (25.6%) were pregnant and 32 (74.4%) lactating women. Thirty five patients were treated for various benign breast diseases which included 23 cases of breast abscess. Eight patients were diagnosed as carcinoma breast and underwent modified radical mastectomy and axillary clearance followed by chemotherapy and radiotherapy.

Conclusions Majority of breast diseases associated with pregnancy and lactation were inflammatory and infectious; however, carcinoma is not a rare entity. Therefore any woman presenting with a breast lump should be thoroughly investigated following the principles of triple assessment.

Key words Breast diseases, Carcinoma, Pregnancy, Lactation, PABC (pregnancy associated breast carcinoma).

INTRODUCTION:

A significant number of women during pregnancy and lactation suffer from a variety of breast problems. The spectrum of lesions is from mild sore nipples, mastitis, breast abscess, galactocele to breast cancer. Breast cancer is the second most frequent malignancy occurring during gestation after cervical cancer, having an incidence of 1- 3 cases per 100,000 pregnancies.¹ Therefore a 'wait and watch' policy should not be adopted and these women be investigated thoroughly, just like a non-gravid woman, until a definite diagnosis is achieved.

Most of the benign lesions seen in pregnancy are the same as seen in the non-gravid state but the diagnosis of breast diseases remain challenging due to the anatomic and physiological changes that occur in the breast during pregnancy and lactation.² Moreover once a diagnosis has been confirmed, the aim of the management is to provide an optimal treatment to the mother with minimum risk to the fetus. This study describes our experience of such cases.

METHODOLOGY:

This was a descriptive case series conducted from January 2009 to January 2010 at Hamdard University Hospital, Burhani Hospital and Kutiyana Memon Hospital in Karachi, where the authors practice. Pregnant or lactating women presenting with complaints related to breast were included in the study. A detailed history and examination findings

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were recorded on a proforma. Ultrasound was done in all patients. Fine needle aspiration cytology (FNAC) was done in 5 and trucut biopsy with 16G needle in 8 patients. Professional liaison was maintained with obstetrician and oncologist during the treatment period. Investigations, given treatment and its outcome were also recorded.

RESULTS:

During the study period 43 patients presented with breast problems, out of which 11 (25.6%) were pregnant and 32 (74.4%) lactating. The age of these patients ranged from 16-40 years. Ultrasound was done in all patients and revealed solid lesions in 8, cystic lesions in 5, abscesses in 23 and mastitis in 7 patients. FNAC was done in 5 patients. In two patients haemorrhagic fluid was aspirated and cytology confirmed the presence of malignant cells, whereas three patients had galactocoele. In patients with solid lesions trucut needle biopsy was done and histopathology confirmed infiltrating ductal carcinoma in 6 and antibioma in 2 patients.

Twenty three patients with abscess were treated with incision and drainage. Seven patients with mastitis were treated with antibiotics and analgesics. Eight patients with carcinoma underwent modified radical mastectomy and axillary clearance, followed by chemotherapy and radiotherapy (after delivery in 4 pregnant women). All 4 pregnant women were in their second trimester and delivered healthy babies at full term. Breast diseases in this study are shown in Table I.

DISCUSSION:

Postpartum and lactation period vary from six months to two years and breast disease is considered pregnancy associated if the diagnosis is made either during pregnancy, lactation or within one year post partum.^{3,4} Most breast conditions presenting in pregnancy and lactation are benign, nevertheless malignancy must be excluded by a thorough workup.⁵ During lactation the major problems encountered are spectrum of inflammatory and

infectious complications. Nasopharyngeal organisms from the infant are usually the source of breast infection in lactating women.⁵ In this series majority of the patients had inflammatory disorders, with 23 (53.4%) patients having developed abscesses and 7 (16.2%) patients presented with mastitis. Both conditions were mostly seen in lactating women. Although international studies have reported 5-11% of breast abscesses developing in lactating women with infectious mastitis.⁴ In this study the rate was much higher as 53.4% women presented with abscess. The probable reasons being delay on part of the patient as well as missed diagnosis and inadequate treatment by the clinician. Furthermore women usually stop lactating with the onset of mastitis, and this promotes infection because of stasis of milk, which is a good culture medium and facilitates growth of organism. Hence breast feeding instead of being harmful to the patient may speed resolution of the infectious process.⁵ We treated all breast abscesses with incision and drainage, except one, an abscess of about 2 cm size which was treated by aspiration and antibiotics, which is an acceptable treatment for small abscesses.⁶

Galactocoeles are considered the most common benign breast lesion in pregnant and lactating women.⁷ However in this series galactocoeles constituted only 6.97% of the total lesions. The main predisposing factor for galactocoele development is thought to be mammary duct obstruction in the lactating breast most likely due to inflammation or in rare cases, a tumour.⁸ The importance of recognizing a galactocoele lies in the fact that it needs to be differentiated from other cystic lesions, most importantly intracystic carcinoma.⁸ Complete resolution of galactocoele is achieved by needle aspiration.

A lactating adenoma is a benign breast lesion which occurs in response to the physiologic changes of pregnancy and lactation. The etiology of lactating adenoma is a source of controversy. Some suggest that the lesion is simply a variant of fibroadenoma, postulate that lactating adenomas are unique

Table I: Breast Diseases During Pregnancy and Lactation

Diseases	No. of patients	No. of Pregnant patients	No. of Lactating patients
Abscess	23 (53.48 %)	6 (13.9%)	17 (39.5%)
Mastitis	7 (16.2%)	00	7 (16.2%)
Antibioma	2 (4.65%)	00	2 (4.65%)
Galactocoele	3 (6.97%)	1 (2.3%)	2 (4.65%)
Carcinoma	8 (18.6%)	4 (9.3%)	4 (9.3%)
Total	43 (99.9%)	11 (25.6%)	32 (74.4%)

tubular adenoma or lobular hyperplasia. Others neoplasms that arise de novo in a hormonally stimulated breast.^{9,10} Lactating adenoma is another commonly reported benign lesion of pregnancy and lactation in international studies. Collins JC et al¹¹ have reported 76% cases and Eun Ju Son⁴ 6.12% cases of lactating adenoma in their studies but we did not find this condition in our study population.

Pregnancy associated breast carcinoma (PABC) is a clinical entity that represents a challenge for physician and patient alike. Most investigators define PABC as breast cancer occurring during gestation, lactation or within one year from delivery.¹² It has been estimated from 32 case series over several decades that 0.2-3.8% of breast cancers occur during pregnancy.¹³ The median maternal age at the time of diagnosis of breast cancer during pregnancy is 33-34 years.¹⁴ In our study the mean age of women diagnosed with carcinoma was 32.5 years. The incidence of PABC is on the rise in women who delay pregnancies until later in life and as number of premenopausal women with breast cancer continues to grow.^{15,16} Some studies have quoted that at least 10% of women with breast cancer, who are less than 40 years will be pregnant at diagnosis.¹⁷ As in the Pakistani women there is increased incidence of breast cancer diagnosed in premenopausal period, this number is expected to be higher as according to another local study majority of the patients (67%) were in the reproductive age.¹⁸ In the present study 8 (18.6%) patients were diagnosed with carcinoma breast. Incidentally the number of pregnant and lactating women was equal.

Previously PABC was associated with a worse prognosis but a majority of authors found no difference between patients with PABC and patients with non-gestational breast cancer matched for stage and age.^{19,20} However an unfavorable prognosis has been related to late diagnosis rather than the distinct tumour biological behaviour.²¹

CONCLUSIONS:

Majority of breast diseases associated with pregnancy and lactation were inflammatory and infectious, however carcinoma breast is not uncommon.

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