

# Benign Breast Diseases In Pregnancy

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## ABSTRACT

**Objective** To find out frequency, diagnosis and treatment of benign breast diseases (BBD) in pregnant women.

**Study design** Descriptive case series.

**Place & Duration of study** Surgical and Gynecological Departments at Khairpur Medical College / Civil hospital Khairpur, from January 2016 to December 2016.

**Methodology** Pregnant women, who presented with different complaints related to their breast, were included. They were assessed clinically and investigated to establish the diagnosis, and treated. Malignant conditions were excluded from this study. Data record was statistically analyzed.

**Results** A total of 91 patients were included. Mean age of patients was 22.75+ 8 year. Majority of the benign breast diseases were neoplastic (n= 55 - 60.43%) followed by inflammatory conditions (n=23 - 25.27%) and remaining miscellaneous conditions were collectively 13 (14.28%). Over all 38.46% BBDs were found in the second trimester of pregnancy, 31.86% in third trimester and 29.67% in first trimester. Fort-six (50.54%) patients were treated nonoperatively and 45 (49.45%) were subjected to surgery.

**Conclusions** Benign breast disease were common in pregnant women. Awareness and breast self-examination is mandatory for early diagnosis and treatment.

**Key words** Benign breast disease, Pregnancy, diagnosis.

## INTRODUCTION:

Benign breast diseases are common in women. About 30% of females will suffer from variety of benign breast disorders requiring treatment at some time in their lives.<sup>1</sup> During pregnancy and lactation, a women breast faces several physiological changes. These changes are due to various hormones which may lead to vascular and lobular hyperplasia.<sup>2</sup> Most of breast lesions, that are diagnosed during pregnancy and lactation are benign, however carcinoma breast as a differential diagnosis remained in consideration and knowledge with skills are required to identify it.

The popular classification of BBDs according to the "Aberration of the Normal Development and Involution (ANDI)" put in confusion due to lack of clarity in distinguishing between the normal physiological changes and the pathologic one. The significant breast conditions during pregnancy include, blood stained nipple discharge, galactoceles, lactating adenoma, etc. When a patient reports with breast symptoms, presence of simultaneous more serious underlying breast condition, must be considered, in addition to exiting benign diseases.

The aim of this study was to evaluate new benign breast diseases during pregnancy with appropriate clinical, radiological and histological diagnosis and setting their treatment options. This may facilitate timely diagnosis and treatment.

## METHODOLOGY:

This descriptive case series was conducted in the Departments of Surgery and Gynecology at Khairpur Medical College and Civil hospital Khairpur from

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January 2016 to December 2016. Pregnant patients who attended Surgical as well as Gynecological out door departments with complaints related to breast were included. Patients with malignant diseases were excluded.

Specific form was developed and demographic data as well as clinical information was recorded. Descriptive statistics were used to present the data.

### RESULTS:

A total of 91 patients were included. Among these 80 (87.91%) women were below the age of 40 years. Minimum age of these patients was 16 year and maximum 42 year with the mean age of 22.75+ 8 year (table I).

In this study majority of the benign breast diseases were neoplastic (60.43%) followed by inflammatory conditions (25.27%). Among these fibroadenomas were common (34%) followed by fibroadenosis with mastalgia (25.27%). Details are given in table II.

Over all 38.46% benign breast diseases were found in the second trimester of pregnancy, 31.86% benign

lesions were observed in third trimester and 29.67% benign conditions were present in first trimester. Out of Ninety one patients, 46 (50.54%) patients were treated non-operatively. Twenty-six (83.87%) fibroadenomas were operated. Twenty patients had mastalgia, that was often associated with tiny discrete lumps in the breast (fibroadenosis). These patients were managed with various kind of medical agents. Three patients of fibroadenosis were eventually operated, due to their clinical impression of fibroadenoma.

Eight (08.79%) patients of galactocele out of 10, were also operated. In two patients manual self-milking and breast suction with sucker bulb via nipples was advised. In six women with mastitis, cellulitis was predominant factor. In these women broad spectrum non-teratogenic antibiotics were used. In two cases incision was made to decompress the swelling. Ten (10.98%) patients of acute breast abscess and eight of galactocele were also opened with adequate incision, to release thick collected pus and clotted milk. Pregnant patients with mastalgia of unexplained origin were successfully treated with reassurance and agents like evening primrose oil,

**Table I: Distribution According to Age and Nature of Disease**

Age Groups	Inflammatory n-%	Neoplastic n-%	Miscellaneous n%	Total n%
<20 Year	02 (2.19%)	20 (22%)	03 (3.29%)	25 (27.47%)
21-30 Year	08 (8.79%)	16 (17.58%)	05 (5.49%)	29 (31.86%)
31-40 Year	10 (10.98%)	12 (13.18%)	04 (4.39%)	26 (28.57%)
>40 Year	03 (3.29%)	07 (7.69%)	01 (1.1%)	11 (12.08%)
<b>Total</b>	23 (25.27%)	55 (60.43%)	13 (14.28%)	91 (99.98%)

**Table II: Frequency of BBDs with Age Groups**

Diagnosis	Age Group In Years				Total n%
	<20	21-30	31-40	>40	
Fibroadenomas	13	9	7	2	31(34%)
Fibroadenosis/Mastalgia	5	7	7	4	23 (25.27%)
Lipoma	1	0	0	0	1 (1.1%)
Mastitis	2	3	2	1	8 (8.79%)
Galactocele	0	3	5	2	10 (10.98%)
Mammary Duct Ectasia	0	3	0	0	3 (3.29%)
Acute Abscess	3	4	3	2	12 (13.18%)
Breast Cyst	0	1	1	0	2 (2.19%)
Nipple Retraction	1	0	0	0	1 (1.1%)
<b>Total</b>	25	30	25	11	91 (99%)

danazol, nonteratogenic analgesic and well-fitting support bra were advised.

### DISCUSSION:

Breast is a dynamic organ undergoing continuous physiological changes. Pregnancy is one such condition.<sup>3,4</sup> Variety of benign and malignant diseases can involve the breast. Majority of breast conditions presenting in pregnancy and lactation are benign, nevertheless malignancy must be excluded by a thorough workup.<sup>5</sup> During pregnancy it become tough to diagnose any pathology, when breasts are enlarged and become bulky due to proliferation of glandular tissue and vascular engorgement. It is also difficult to palpate and assess small lumps due to hypercellularity and hypervascularity of breast tissues resulting in doubt about the lump, which leads to a late presentation of disease.<sup>6,7</sup>

In this study most frequent age group involved by BBDs was 21-30 years in 32% cases, which is the most active reproductive period of a women life. It also coincides with other studies where the peak age mentioned is 20-29 years.<sup>8,9</sup> Breast lump and pain were the commonest presentation of different kind of underlying pathologies in present series, and same has been reported in another study.<sup>10</sup>

Over all benign neoplastic lesions were frequent in this series and fibroadenoma was commonest entity (34%) in all age groups with mean age of 22.75 + 8 year. Similar findings are reported in literature.<sup>11</sup> Other related benign tumor of breast is lactating adenoma which typically occurs during lactation and in third trimester of pregnancy. It is also known as the tumor of pregnancy because changes seen in the form of secretion in these lesions resemble lactational changes of pregnancy.<sup>12</sup> The tissue diagnosis of breast lumps is always needed and in this regard FNAC is a good diagnostic tool, but its false positive results has put it in debate. Trucut or open biopsy is recommended for such lesions due to its higher sensitivity but it can lead to milk fistula in late pregnancy.<sup>13</sup>

Inflammatory conditions were frequently observed lesions in this study. This included conditions like mastitis, acute abscess and duct ectasia. Mean age of patients was 28.4 year. In this study the frequency of acute abscess was found almost 10%, which matches with the international studies, where it has been reported as 5-11%.<sup>14</sup> The reason behind these inflammatory condition of breast in pregnancy could be malnutrition, low immunity, diabetes mellitus, obesity and poor hygiene of skin and overlying clothing, which are not uncommon in socio-economically poor class in our area. The nipple and

skin could be the primary source of infection. Overlying skin diseases, minor cracks and various forms of trauma to bulky breast can predispose to infection. Majority of the cases with breast abscess and galactoceles were received with acute pain and fever, therefore they were handled and operated in emergency. Follow up with anti-septic dressings and antibiotic therapy, healed these wounds smoothly.

Mastalgia or breast pain was described in the medical literature as early as 1829.<sup>15</sup> It was known to medical practitioners much earlier.<sup>16</sup> Breast pain is considered normal rather than a disease and it requires treatment only in 15% of women. Breast pain in pregnancy may be unilateral or bilateral with variable intensity, and its origin has both cyclic and non-cyclic background. Hormonal factors have a role in cyclic mastalgia because this condition is defined by its relationship to the menstrual cycle and its tendency to change during pregnancy, and with hormone therapy.<sup>17,18</sup>

Mastalgia was the second common complaint (n=23 -25.27%), in present series of patients. It was almost equally observed in each trimester of pregnancy. Other associated symptoms with various findings like breast nodularity and lumpiness were also found in these patients. This figure of mastalgia is also supported by another study of 80 patients, where they mentioned 32.5% incidence of mastalgia in their series of BBDs.<sup>19</sup> Number of patients also had discrete bilateral tiny clinical lumps. This condition was distinguished from single localized well-defined lump in one or both breast.

Galactoceles are considered the most common benign breast lesion in pregnant and lactating women.<sup>20</sup> In this study 10 (10.98%) cases of galactoceles were managed, all in the third trimester of pregnancy. This condition commonly occurs in postpartum period due to blockage of lactating ducts. Process of milk formation begins in pregnancy, therefore, similar pathogenesis of lobular ducts formations and engorgement of milk, could be the reason behind early presentation of this condition in our patients.

### CONCLUSIONS:

Benign breast diseases during pregnancy do not vary from those found in non-pregnant women but they are tricky to diagnose. Fibroadenoma remained the most common condition followed by mastalgia.

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