

A dissertation on
**ANALYSIS OF BREAST PAIN AND NIPPLE DISCHARGE
WITHOUT LUMP AND CORRELATION WITH BREAST
CANCER IN
CMCH A PROSPECTIVE STUDY**



**Dissertation submitted to
THE TAMIL NADU Dr.M.G.R. MEDICAL UNIVERSITY
CHENNAI, TAMIL NADU
With partial fulfilment of the regulations required
for the award of degree of
M.S. GENERAL SURGERY
BRANCH- I**



**COIMBATORE MEDICAL COLLEGE,
COIMBATORE
MAY 2018**

DECLARATION

I solemnly declare that the dissertation titled “**ANALYSIS OF BREAST PAIN AND NIPPLE DISCHARGE WITHOUT LUMP AND CORRELATION WITH BREAST CANCER IN CMCH A PROSPECTIVE STUDY**” was done by me from 2016 onwards under the guidance and supervision of **PROF. DR. D.N. RENGANATHAN , M.S**

This dissertation is submitted to the Tamilnadu Dr. M.G.R Medical University towards the partial fulfillment of the requirement for the award of M.S Degree in General Surgery (Branch I).

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in the dense connective tissue and longitudinally along the lactiferous ducts that extend up into the nipple. These muscle fibers are responsible for the contraction of the areola, nipple erection, and emptying of the milk sinuses. The majority of the breast parenchyma extends inferiorly from the level of the second or third rib to the inframammary fold, which is at about the level of the sixth or seventh rib, and laterally from the edge of the sternum to the anterior axillary line. The mammary tissue also extends variably into the axilla as the glandular Tail of Spence. The posterior surface of the breast rests on portions of the fasciae of the pectoralis major, serratus anterior, external abdominal muscles.

FASCIAL AND LIGAMENOUS SYSTEM

The mammary tissue is enveloped by the superficial fascia of the anterior thoracic wall, which continuous above with the cervical fascia and below with the superficial abdominal fascia of Camper. The superficial layer of this fascia is poorly developed, especially in the upper part of the breast. It is an indistinct fibrous fatty layer that is connected to, but separate from, dermis and breast tissue. This superficial fascial layer can be used effectively for suspension of the high-tension wound repair of breast-contouring procedures as described by Lockwood. The deep layer is better developed, lying in part on the pectoralis fascia. Between these two fasciae is the retromammary space filled with loose tissue that allows the breast to move freely over the chest wall. Projections of the deep layer of the superficial fascia cross this retromammary space, fuse with the pectoralis fascia, and form the posterior suspensory ligaments of the breast. The breast parenchyma may

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LIST OF ABBREVIATIONS

1. IMA - Internal mammary artery
2. BIRADS - Breast imaging reporting and data system
3. MRM - Modified radical mastectomy
4. WLE - Wide local excision
5. SSM - Skin sparing mastectomy
6. LABC - Locally advanced breast carcinoma
7. BCS - Breast conservation surgery
8. PET - Positron emission tomography
9. ER - Estrogen receptor
10. PR - Progesterone receptor
11. ANDI - Aberrations of normal development and involution
12. FNAC - Fine needle aspiration cytology

INTRODUCTION

Breast pain is a common and significantly distressing complaint noted frequently in majority of the patients visiting the general surgery out patient department. The initial thought of the patient in this setting is doubting the occurrence of breast cancer even in a single instance of breast pain which can be highly distressing and can cause severe anxiety in the patient. Majority of the patients with a non suspicious breast lump , breast pain or discharge fears that these minor symptoms are the initial symptoms of breast carcinoma. The anxiety caused by these thoughts along with the misguidance of the unknown course of the disease , the threat of mutilation and the fear of death compounded by social and cultural norms among certain groups caused a misconception of the complete nature of the disease which prevented the women from seeking early medical advice and intervention.

The misconceptions and misguidance should be revoked by the medical practitioner in order to fully relieve the patient from the symptoms of breast pain. Patients attending the general surgical out patient department with complaints of breast pain should be evaluated

with complete history , complete physical examination and routine radiological investigations to rule out underlying hidden malignancy.

The patients should be counselled properly about the extent of the disease , treatment options and further management after medial or surgical intervention. The patients are evaluated and correlation is done in the incidence of breast pain without lump with the incidence of breast cancer in these type of patients.

AIMS AND OBJECTIVES OF THE STUDY

TO PROSPECTIVELY VALIDATE AND EVALUATE FEMALE PATIENTS ATTENDING THE GENERAL SURGERY OUTPATIENT DEPARTMENT WITH BREAST PAIN AND NIPPLE DISCHARGE WITHOUT LUMP AND CORRELATE THE INCIDENCE OF DETECTION RATES OF BREAST CANCER IN THESE PATIENTS IN THE DEPARTMENT OF GENERAL SURGERY AT COIMBATORE MEDICAL COLLEGE AND HOSPITAL.

REVIEW OF LITERATURE

ANATOMY OF THE BREAST

Breasts are basically modified sweat glands , more precisely apocrine glands. They are rudimentary in males and are well developed in female post puberty. The epidermis of the nipple and areola is highly pigmented and somewhat wrinkled, and the skin of the nipple contains numerous sebaceous and apocrine sweat glands and relatively little hair. The 15 to 25 milk ducts enter the base of the nipple, where they dilate to form the milk sinuses. Slightly below the nipple's surface, these sinuses terminate in cone-shaped ampullae. The circular areola surrounds the nipple and varies between 15 and 60 mm in diameter. Its skin contains lanugo hair, sweat glands, sebaceous glands, and Montgomery's glands, which are large, modified sebaceous glands with miniature milk ducts that open into Morgagni's tubercles in the epidermis of the areola.

Deep in the areola and nipple, bundles of smooth muscle fibers are arranged radially and circularly in the dense connective tissue and longitudinally along the lactiferous ducts that extend up into the nipple. These muscle fibers are responsible for the contraction of the areola, nipple erection, and emptying of the milk sinuses.

The majority of the breast parenchyma extends inferiorly from the level of the second or third rib to the inframammary fold, which is at about the level of the sixth or seventh rib, and laterally from the edge of the sternum to the anterior axillary line. The mammary tissue also extends variably into the axilla as the glandular Tail of Spence. The posterior surface of the breast rests on portions of the fasciae of the pectoralis major, serratus anterior, external abdominal muscles.

FASCIAL AND LIGAMENTOUS SYSTEM

The mammary tissue is enveloped by the superficial fascia of the anterior thoracic wall, which continuous above with the cervical fascia and below with the superficial abdominal fascia of Camper. The superficial layer of this fascia is poorly developed, especially in the upper part of the breast. It is an indistinct fibrous fatty layer that is connected to, but separate from, dermis and breast tissue. This superficial fascial layer can be used effectively for suspension of the high-tension wound repair of breast-contouring procedures as described by Lockwood.

The deep layer is better developed, lying in part on the pectoralis fascia. Between these two fasciae is the retromammary space filled with loose tissue that allows the breast to move freely over the chest wall. Projections of the deep layer of the superficial fascia cross this

retromammary space, fuse with the pectoralis fascia, and form the posterior suspensory ligaments of the breast.

The breast parenchyma may accompany these fibrous processes into the pectoralis major muscle itself. Therefore, complete removal of the breast parenchyma necessitates excision of the pectoralis fascia and a layer of muscle as well. The superficial layer and skin are linked to the deep layer by the ligaments of Cooper, which are fibrous and elastic prolongations that divide the gland into multiple septa and give suspensory support to the breast. The breast parenchyma is made up of 15 to 25 lobes of glandular tissue, each emptying into a separate milk duct terminating in the nipple.

INNERVATION OF THE BREAST

The breast is innervated by the lateral and anterior cutaneous branches of the second to sixth intercostal nerves. The lateral cutaneous branches pierce the intercostal muscles and the deep fascia in the midaxillary line and take an inferomedial course. The second lateral cutaneous branch terminates in the axillary tail of the breast. The third, fourth, fifth, and sixth lateral cutaneous branches continue on the surface of the serratus anterior for 3–5 cm. At the border of the pectoral muscle they divide into a deep and a superficial branch. The deep branch courses

below or within the pectoral fascia to the midclavicular line, where it turns for almost 90° to run through the gland, giving off several branches. The superficial branch runs in the subcutaneous tissue and terminates in the skin of the lateral breast .

The anterior cutaneous branches innervate the medial portion of the breast. After piercing the fascia in the parasternal line they divide into a lateral and a medial branch. While the medial branch crosses the lateral border of the sternum, the lateral branch divides again into several smaller branches, which take an inferolateral course through the subcutaneous tissue. They become progressively more superficial along their way and terminate in the breast skin or at the areolar edge. The supraclavicular nerves terminate in the skin of the superior part of the breast.

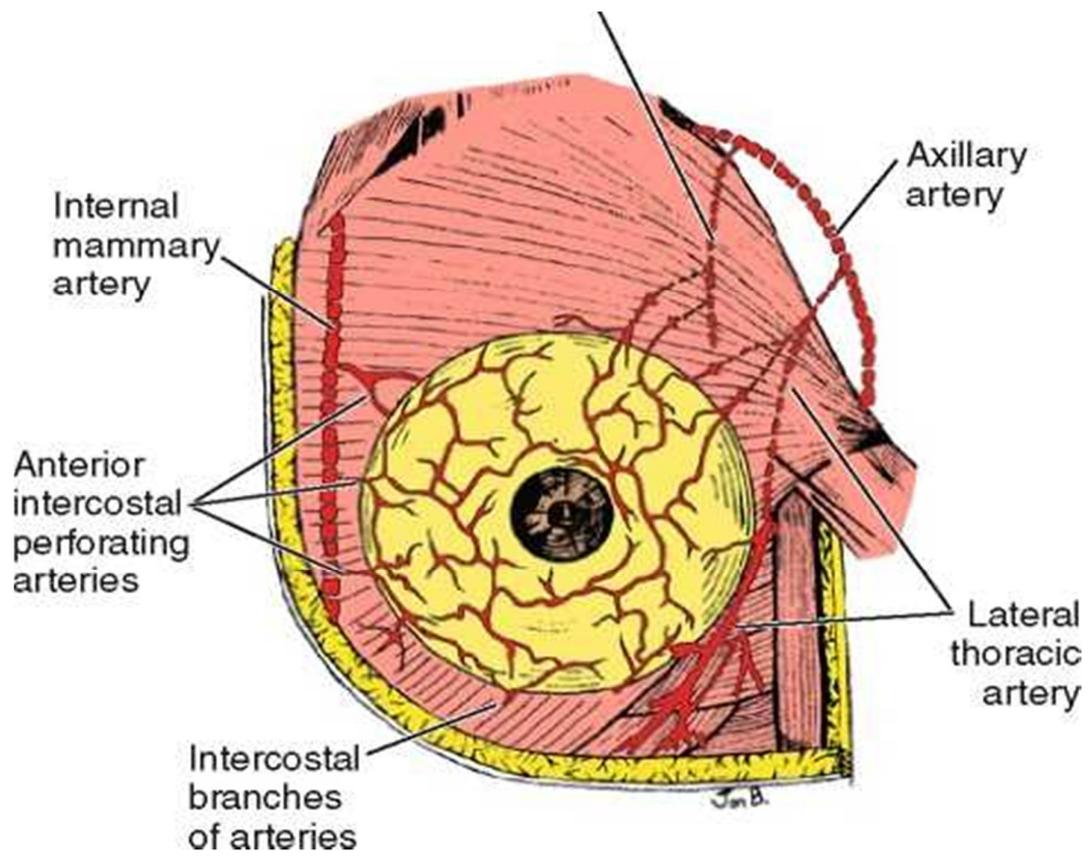
ARTERIAL SUPPLY OF THE BREAST

Three main arterial routes supply the breast: the internal mammary artery, the lateral thoracic artery, and the intercostal arteries :

1. The internal mammary artery, a branch of the subclavian artery, provides approximately 60% of total breast flow, mainly to the medial portion, by anterior and posterior perforating branches. The anterior perforating branches exit their respective intercostal spaces

approximately 2 cm laterally to the sternum. The second and third anterior perforating branches are by far the most significant. The first and fourth are less constant.

2. The lateral thoracic artery arises from the axillary artery or, rarely, from the thoracoacromial or subscapular artery. This artery supplies up to 30% of breast blood flow to the lateral and upper outer portions of the breast. The branches course inferomedially within the subcutaneous tissue to effect anastomoses with branches of the internal mammary and intercostal arteries in the areolar area. Because there is often more subcutaneous tissue laterally than medially, they are frequently found from 1 to 2.5 cm from the skin surface. As the areola is approached, all of these vessels become more superficial.
3. The third, fourth, and fifth posterior intercostal arteries are the least important of the arteries supplying the breast. Originating from the aorta, they course in the intercostal spaces and mainly supply the inferoexternal quadrant of the breast. Additional minor sources of arterial supply to the breast include branches from the axillary artery, the thoracic artery, the subscapular artery, and the pectoral branches of the thoracoacromial artery.

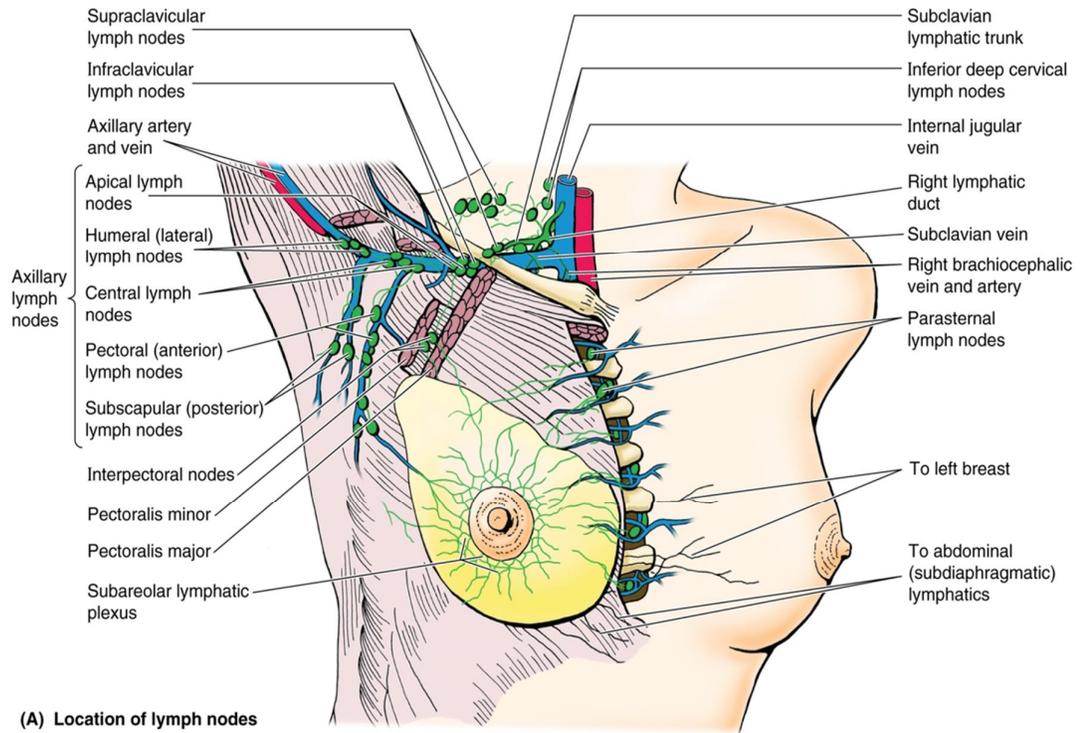


VENOUS DRAINAGE OF THE BREAST

The venous drainage of the breast is divided into a superficial system and a deep system.

1. The superficial system lies just below the superficial layer of the superficial fascia and has been classified into two main types: transverse and longitudinal. The transverse veins (91%) run medially in the subcutaneous tissues and join perforating vessels that empty into the internal mammary vein. Longitudinal vessels (9%) ascend to the suprasternal notch and empty into the superficial veins of the lower neck.
2. Three groups of veins are involved in the deep drainage system of the breast:
 - (a) Perforating branches of the internal mammary vein, which are the largest vessels of the deep system and empty into the corresponding innominate veins.
 - (b) Tributaries of the axillary vein.
 - (c) Perforating branches of posterior intercostal veins.

These veins communicate with the vertebral veins and the azygos vein, which leads to the superior vena cava. All three of these venous pathways lead to the pulmonary capillary network and provide a route for metastatic carcinoma emboli to the lungs. The vertebral system of veins provides an entirely different metastatic route. These veins form a vertebral venous plexus and provide a direct venous pathway for metastases to bones of the spine, pelvis, femur, shoulder girdle, humerus, and skull.



LYMPHATIC DRAINAGE OF THE BREAST

Lymphatics of the breast resemble veins in structure. They are elastic in nature. Lymphatics of the breast contain valves which prevent backflow. Along their length, multiple lymph nodes are present.

In Breast, two types of lymphatics are present -

1) Superficial Lymphatics- Drains skin over the Breast except nipple and areola

2) Deep Lymphatics- a) Drains the Parenchyma of Breast .

b) Also drains the nipple and areola.

Lymph nodes of the breast have several lymphatics leading towards them (afferent) and one or two leading away (efferent).

Lymph From the breast drains into:

- 1) Axillary Lymph Nodes
- 2) The internal mammary lymph Nodes
- 3) Some lymph also reaches supraclavicular, cephalic, posterior, intercostal, subdiaphragmatic and subperitoneal lymph nodes.

The axillary lymph nodes (some 20–30 in number) drain :

- lymphatics of the breast
- pectoral region
- Upper abdominal wall
- upper limb.

The axillary lymph nodes are arranged in five groups :

- anterior :lying deep to pectoralis major along the lower border of pectoralis minor;
- posterior—along the subscapular vessels;
- lateral—along the axillary vein;
- central—in the axillary fat;
- apical (through which all the other axillary nodes drain)at the apex of the axilla above pectoralis minor and along the medial side of the axillary vein.

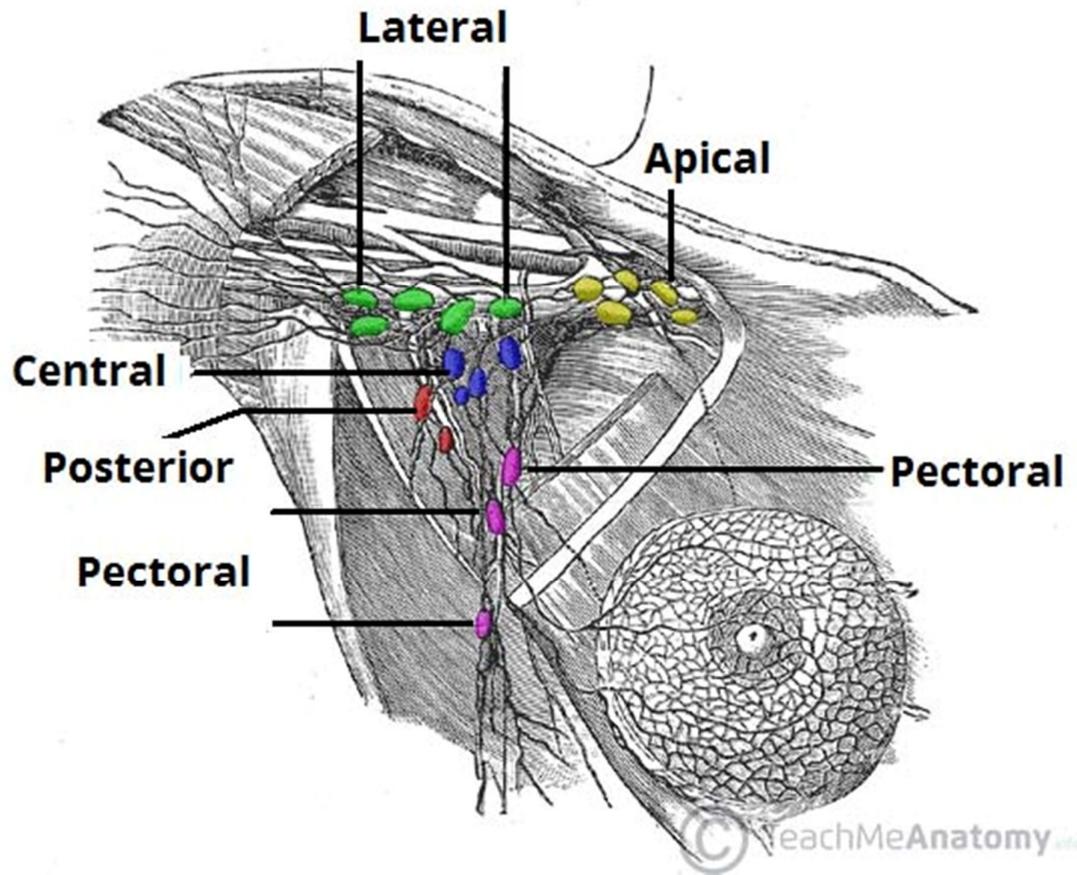
Lymph of the breast drains as:

- About 75% into axillary nodes(anterior group)

- 20% ---- internal mammary nodes
- 5% ---- posterior intercostal nodes

Internal mammary nodes drain the lymph not only from the inner half of the breast, but from the outer half as well. There is a tendency for the lateral part of the breast to drain towards the axilla and the medial part to the internal mammary chain.

The axillary nodes play a pivotal role in the spread of carcinoma breast and it has become an essential methodology to give axillary clearance of the lymph nodes during the removal of the breast tissue. Axillary lymph nodes are positive in many number of cases of carcinoma breast and they play a pivotal role in determining the prognosis and outcome of the multi modality treatment instituted in the treatment of carcinoma breast.



CARCINOMA BREAST

HISTORY OF CARCINOMA BREAST :

In the second century AD , Galen on his classical clinical observation of a breast carcinoma said that " We have often seen in the breast a tumor exactly resembling the animal , crab. Just as the crab has legs on both sides of the body , so in this disease the veins extending out from the unnatural growth take the shape of the crab's legs. We have cured this disease in its early stages , but after it has reached a larger size , no one has cured it ".

In 1761 , Giovanni Morgagni was the first to do something which has become routine today – he did autopsies to relate the patient’s illness to pathologic findings after death.This laid the founding to scientific oncology , the study of cancer.

The famous Scottish surgeon John Hunter suggested that some cancers might be cured by surgery and described how the surgeon might decide which cancers to operate on.If the tumor had not invaded nearby tissues and was “movable” he said , “ there is no impropriety in removing it”.

Beginning with Morgagni , surgical resections were more frequently undertaken , including some early attempts at mastectomy and axillary dissection. In the 18th century , le Dran incorrectly postulated that breast cancer was a local disease that spread by way of lymph vessels to axillary lymph nodes. When he operated on a woman with breast cancer , he routinely removed any enlarged axillary lymph nodes.

In 1867 , C.H. Moore , of the Middlesex Hospital , London reemphasized complete resection of the breast for cancer and stated that palpable axillary lymph nodes should also be removed. In a presentation before the British Medical Association in 1877 , Banks supported Moore's concept and advocated the resection of axillary lymph nodes even when palpable lymphadenopathy was not evident , recognizing that occult involvement of axillary lymph nodes was frequently present.

In 1894 , Halsted and Meyer reported their operations for treatment of breast cancer. By demonstrating superior locoregional control rates after radical resection , these surgeons established radical mastectomy as state of the art for that era. Both Halsted and Meyer advocated complete dissection of axillary lymph node levels I to III. Resection of the long thoracic nerve and the thoracodorsal neurovascular bundle with the

axillary contents was routine. This technical maneuver contributed significantly to the surgical management of the disease.

However , in 1943 , Haagensen and Stout described the grave signs of breast cancer :

1. Edema of the skin of the breast
2. Skin ulceration.
3. Chest wall fixation
4. An axillary lymph node greater than 2.5cm in diameter
5. Fixed axillary lymph nodes.

Women with 2 or more signs had a 42% local recurrence rates and only a 2% 5-year disease free survival. Based on the findings , they declared that women with grave signs were beyond cure by radical surgery. Approximately 25% of women were excluded from surgery based on the criteria of inoperability.

Presently with comprehensive mammography 10% of women are found to have advanced breast cancers.

A technical and aesthetic advance was proposed in 1948 , when Patey and Dyson of the Middlesex hospital , London , advocated

"Modified Radical" mastectomy for the management of advanced operable breast cancer. The technique espoused by these surgeons included removal of the breast and axillary lymph nodes with preservation of the pectoralis major muscle. They showed that removal of the pectoralis minor muscle allowed access to and clearance of axillary lymph nodes levels I to III.

Today the modification is frequently limited to severance of the origin of the pectoralis major muscle at the coracoid process of the scapula. Subsequent to the description of the Patey modification, Madden advocated a modified RM that preserved both the pectoralis major and minor muscles even though this approach prevented the complete dissection of the apical (level III) axillary lymph nodes.

The transition from the Halsted radical mastectomy to the modified Radical mastectomy acknowledged that :Extirpation of the pectoralis major muscle was not essential for locoregional control in Stage I and Stage II breast cancer. Neither modified Radical mastectomy nor Halsted radical mastectomy consistently achieved locoregional control of Stage III breast cancer.

INTRODUCTION :

Breast cancer accounts for 26% of all female cancers (excluding nonmelanoma skin cancers and in situ cancers). More than 182,960 women were diagnosed with invasive breast cancer alone in 2008 , and despite significant strides in the treatment of breast cancer , more than 40,000 women die of the disease each year.

The public has become increasingly aware of breast cancer and its prevalence and , as a result , women presenting with breast complaints are anxious about the possibility of being diagnosed with breast cancer. Clinicians evaluating women with breast complaints should provide a comprehensive , efficient , and timely consultation so that the anxiety can be relieved by a benign diagnosis or a treatment plan can be instituted promptly should a cancer be diagnosed.

1. HISTORY AND PHYSICAL EXAMINATION :

History and physical examination are the initial mainstay tools of the surgeon for the evaluation and prompt detection of suspicious lesions in the patient presenting to the surgical OPD.

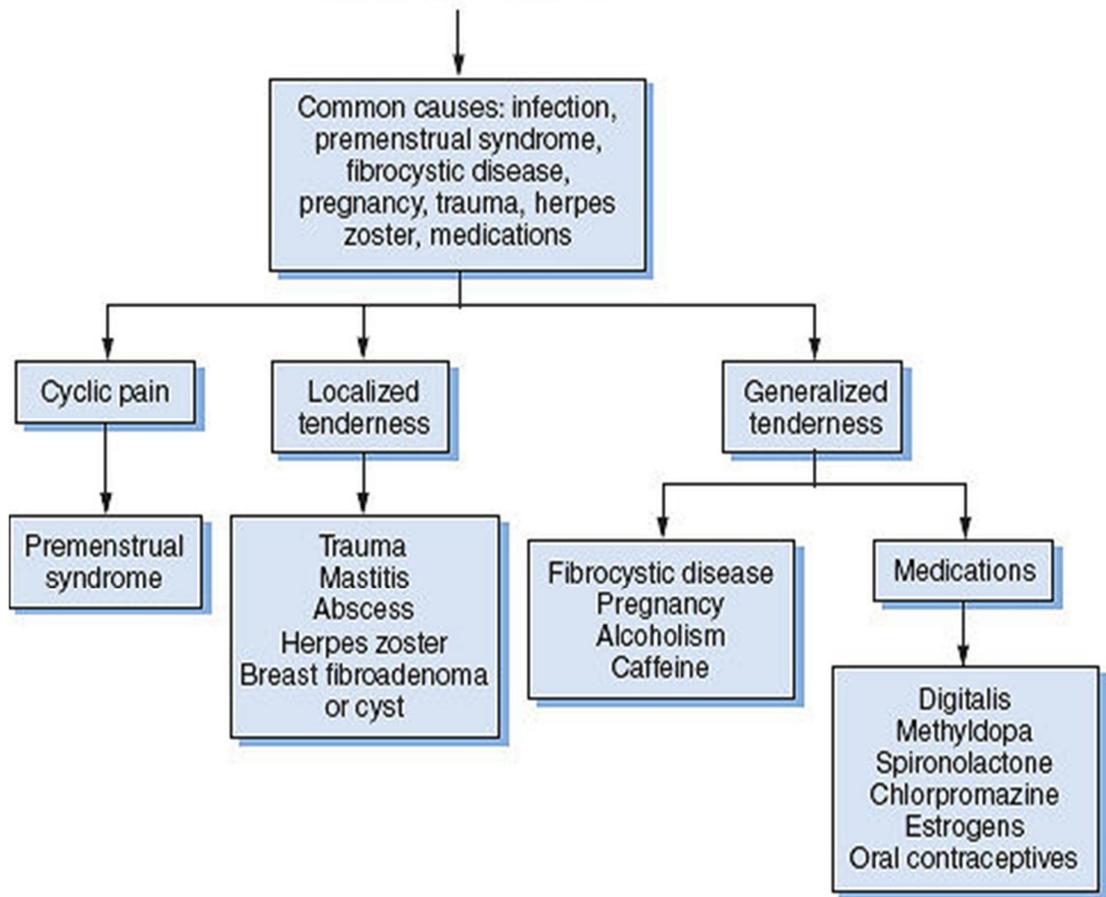
History should include the detailed list of complaints and their respective duration of complaints given by the patient such a Breast pain

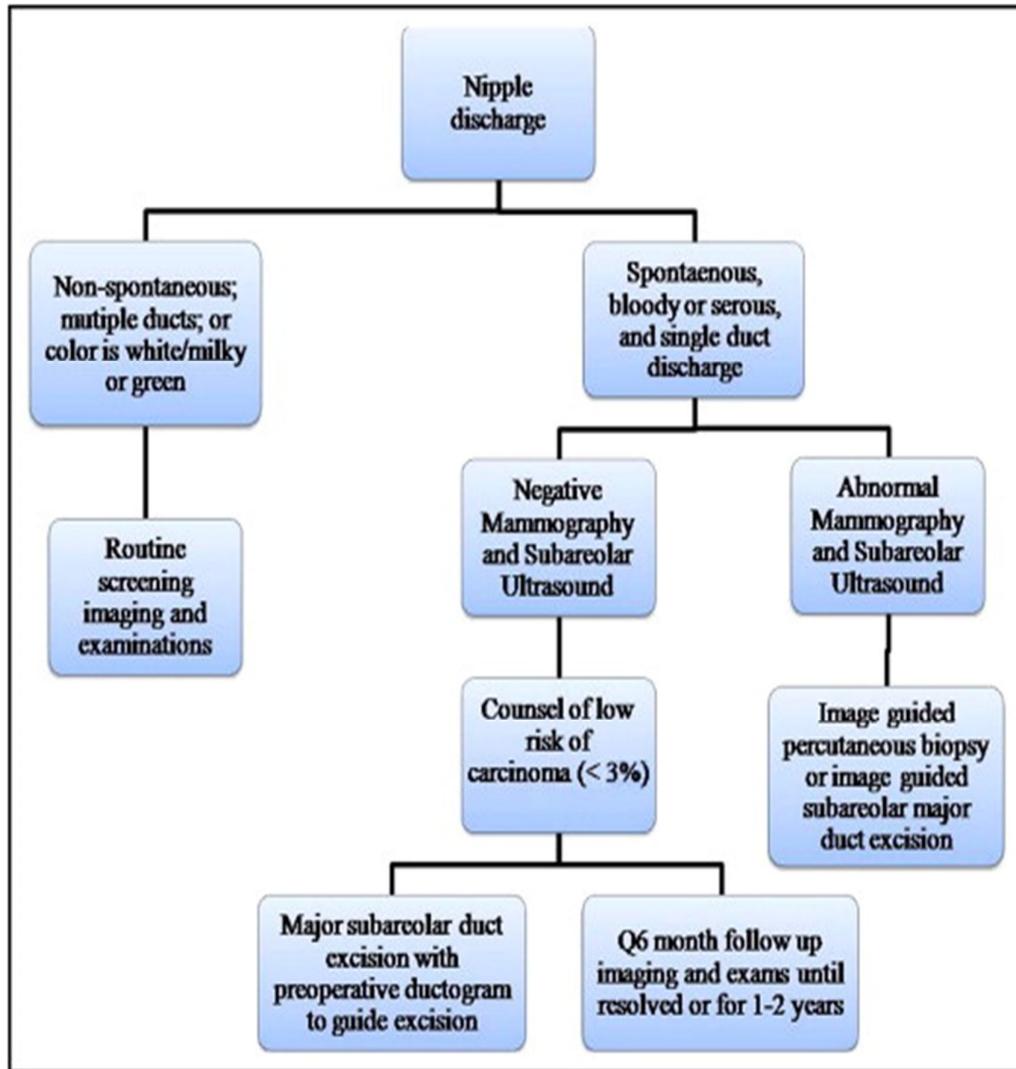
,Breast lump , Skin discoloration , Nipple and areolar changes and other symptoms.

Personal history such as early menarche and late menopause , use of oral contraceptive pills and family history of breast cancer should also be evaluated from the patient.

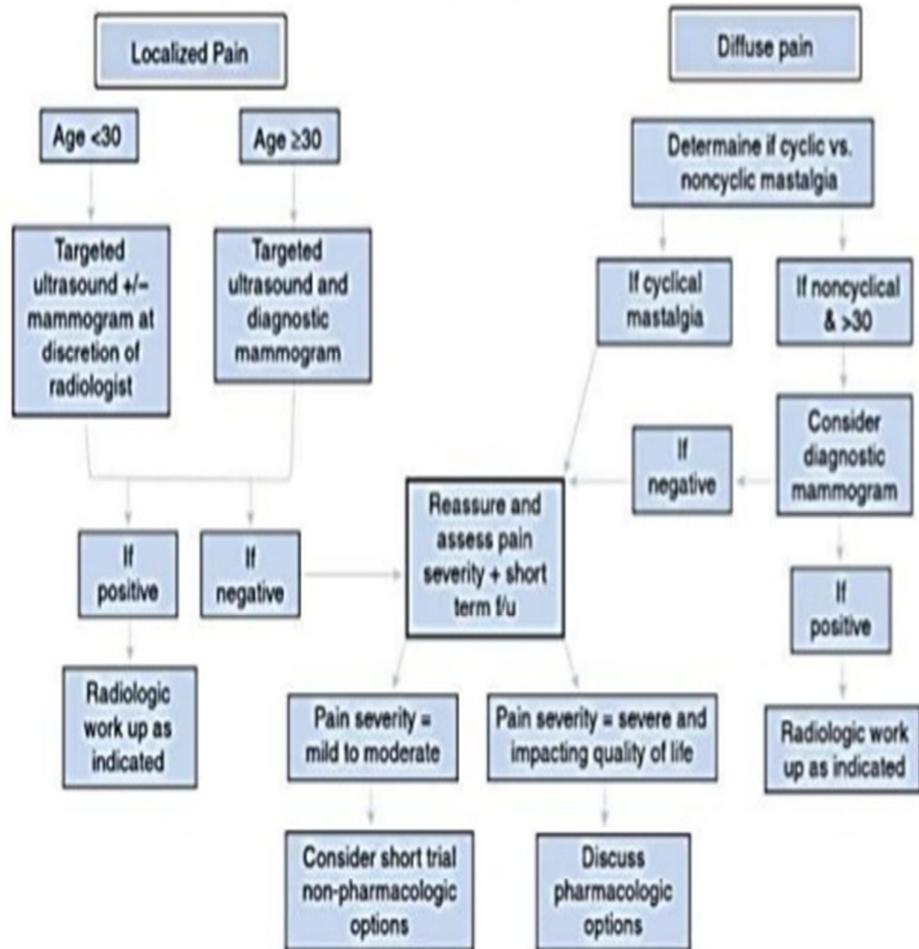
Physical examination should include thorough examination of both breasts , bilateral axilla , bilateral supra-clavicular fossae and including other systemic evaluation such as respiratory system to rule out metastasis to the lungs.

BREAST PAIN





Evaluation of breast pain and no palpable breast mass



2. RISK FACTORS FOR BREAST CARCINOMA

There are various risk factors for breast carcinoma they should be kept in the mind of the clinician while evaluating a patient presenting to the surgical OPD with breast complaints.

The various risk factors are :

- Gender
- Age
- Genetic risk factors :
 1. BRCA 1 OR 2
 2. Ataxia Telengectasia
 3. Li-Fraumeni syndrome
 4. Cowden syndrome
- Family history of breast cancer
- Personal history of breast cancer
- Previous breast biopsy
 1. Proliferative breast disease without atypia

2. Atypical hyperplasia

3. Lobular carcinoma in situ

- Previous thoracic radiation

- Endocrine risk factors :

1. Early menarche

2. Late menopause

3. Late parity

4. Nulliparity

5. Long term hormone replacement with estrogen and progesterone

- Lifestyle factors :

1. Obesity

2. Alcohol

IMAGING IN BREAST CARCINOMA

After the initial complete evaluation of the patient , according to the symptoms and signs presented by the patient , the clinician should further evaluate the patient according to the clinical suspicion in the detection of the breast cancer in that patient. The next line of management in patients presenting to the surgical OPD with breast complaints is imaging. Various imaging modalities are present for evaluation of the patients , they are :

- Mammography
- Ultrasound
- Ductography
- Magnetic Resonance Imaging.

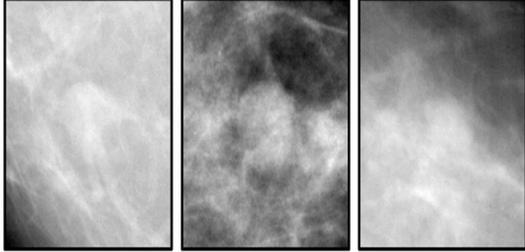
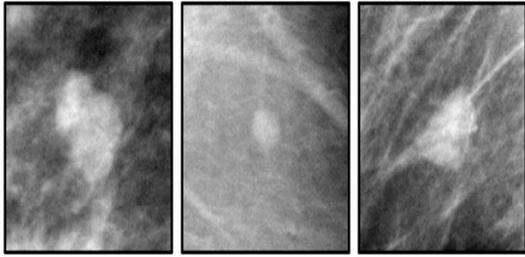
1. MAMMOGRAPHY :

Screening mammography is used to detect cancer in asymptomatic women when cancer is not suspected. Diagnostic mammography is used to evaluate patients with breast symptoms or complaints , such as nipple discharge , or a palpable mass , patients who have had abnormal results

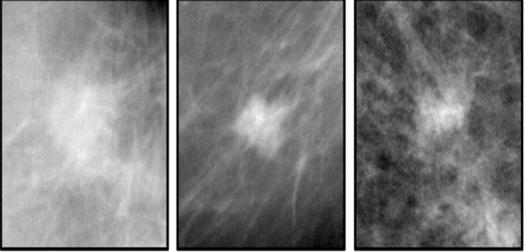
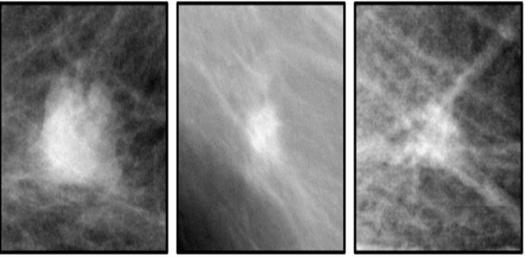
on screening mammography or patients who have had breast cancer treated with breast conservation therapy.

Mammography can be used in patients above 35 years old for screening for carcinoma breast since the breast tissue will not be dense and hence the reporting of false positives will be minimal. Mammography can show the presence of macro calcifications indicating the presence of benign disease of the breast. In malignant conditions the mammography picture will reveal micro calcifications with distorted breast tissue structure.

Benign masses



Malignant masses



The Breast Imaging Reporting and Data Systems (BIRADS) final assessment classification was developed by American College of Radiology to standardize mammographic reporting.

TABLE 4: BI-RAD classification of mammographic lesions

BI-RAD class	Description	Probability of malignancy (%)	Follow-up
0	Needs additional evaluation		Diagnostic mammogram, ultrasonographic image
1	Normal mammogram	0	Yearly screening
2	Benign lesion	0	Yearly screening
3	Probably benign lesion	< 2	Short interval follow-up
4 ^a	Suspicious for malignancy	20	Biopsy
5	Highly suspicious for malignancy	90	Biopsy
6	Biopsy-proven malignancy	100	Treatment

BI-RAD = Breast Imaging Reporting Data System
^a The ACR recommends that each site be divided into three subcategories: 4A, low suspicion; 4B, intermediate suspicion; and 4C, moderate concern but not classic for malignancy.

BIRADS TABLE

2. ULTRASOUND :

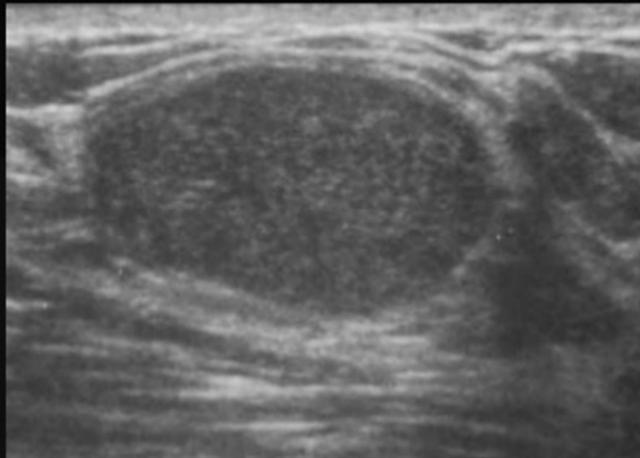
Ultrasound was initially used to differentiate solid masses from cystic masses , but it has become an important adjunct to mammography and is an excellent method for guiding certain interventional procedures.

Ultrasound is not a breast screening tool. Accurate breast ultrasonography requires high resolution real time ultrasound equipment

that is properly maintained and calibrated. A 7 Mhz linear array transducer is the minimum frequency that can be used for ultrasound of the breast , although 10 to 13 MHz linear transducers may be preferable.

Features of benign lesions :

- Ellipsoid shape
- Hyper or Hypoechoogenicity
- Smooth and well circumscribed margins.



A typical fibroadenoma with homogeneous internal echoes with an ovoid shape and circumscribed margins -- **benign**. There is posterior acoustic enhancement..

Features of Malignant lesions :

- Irregular margins
- Hypoechoic to surrounding tissue with posterior acoustic shadowing
- Vertical growth appearance (taller than wide)



A typical **'tall' irregular spiculated hypoechoic** attenuating mass in keeping with a **malignant** breast tumour.

3. MAGNETIC RESONANCE IMAGING :

Magnetic resonance imaging is being used with increasing frequency for the screening and diagnosis. While mammography remains the "gold standard" , MRI is emerging as an important modality for evaluating breast diseases.

DIAGNOSTIC BIOPSY :

Different invasive modalities are used for diagnosis and detection of breast carcinoma in palpable and non palpable lesions of the breast.

For Non palpable lesions :

- Aspiration of breast cysts
- Fine needle aspiration Biopsy
- Core needle Biopsy
- Stereotactic Core Biopsy
- Ultrasound guided biopsy
- Needle localization Biopsy

For Palpable lesions :

- Excision biopsy
- Incision biopsy

- Punch biopsy.

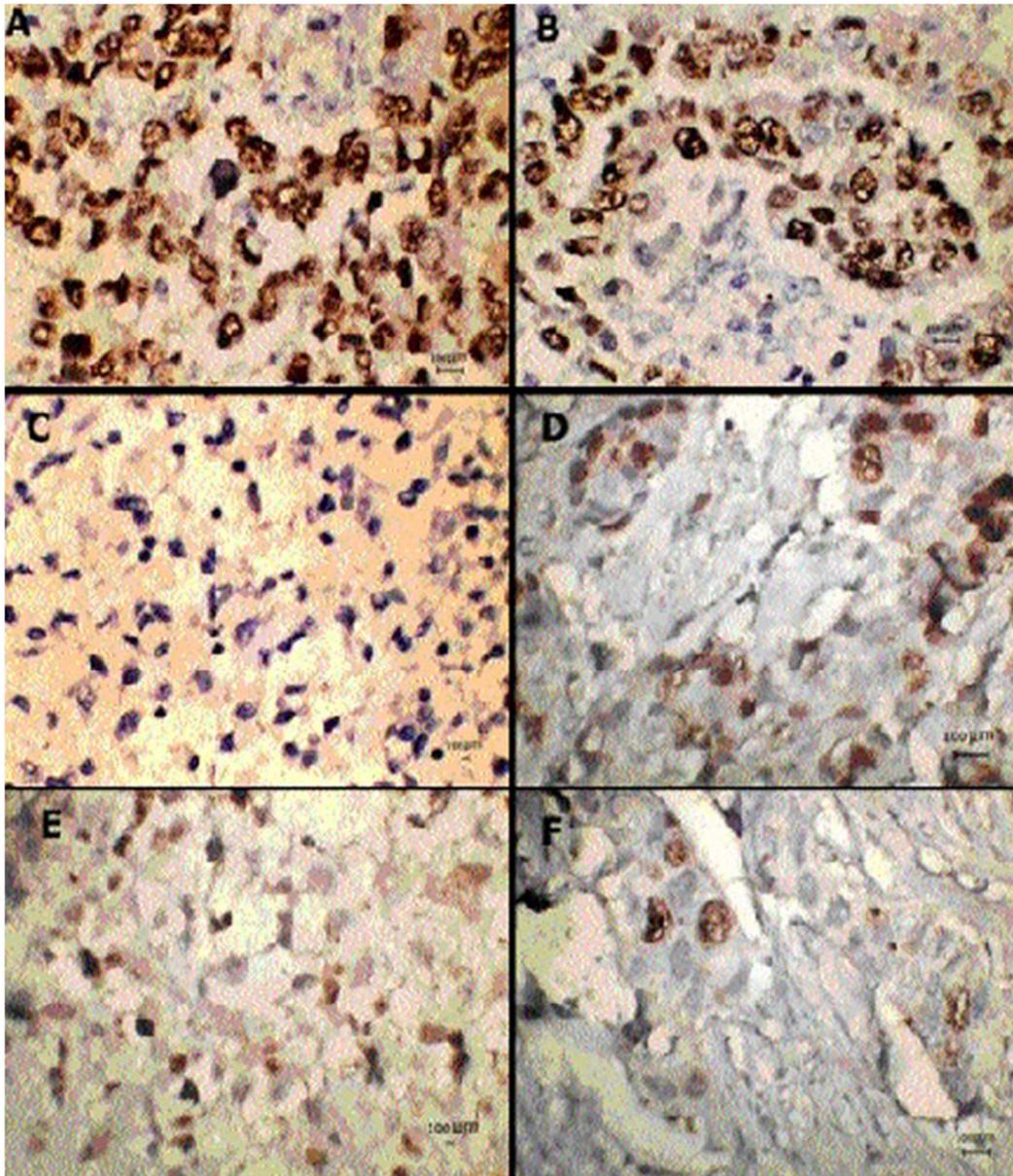


Figure-1: Four-micron cross section of cancerous breast tissue, showing the A(+++), B(++) P53 protein stability, C (P53 protein instability), D(+++), E(++) F(+), Ki67 gene expression. Cancerous cells have been stained brown by immunohistochemistry. (magnification 400x).

STAGING OF BREAST CARCINOMA

TNM classification of breast tumors	
Tis Cancer in situ	N0 No regional lymph node metastases
T1 < 2 cm (T1a < 0.5 cm, T1b > 0.5-1 cm, T1c 1-2 cm)	N1 Palpable mobile involved ipsilateral axillary nodes
T2 > 2-5 cm	N2 Fixed involved ipsilateral axillary nodes
T3 > 5 cm	N3 Ipsilateral internal mammary node involvement (rarely clinically detectable)
T4a Involvement of chest wall	M0 No evidence of metastases
T4b Involvement of skin (ulceration, direct infiltration, peau d'orange, and satellite nodules)	M1 Distant metastases (includes ipsilateral supraclavicular nodes)
T4c T4a and T4b together	
T4d Inflammatory cancer	
Correlation of UICC (1987) and TNM Classification of tumors	
TNM classification	UICC stage
T1, N0, M0	I
T1, N1, M0; T2, N0-1, M0	II
Any T, N2-3, M0; T3, any N, M0; T4, any N, M0	III
Any T, any N, M1	IV

Early Breast Cancer(EBC): Stage I&II, T1N1, T2N1, T3N0

Locally Advanced Breast Cancer(LABC): Stage IIIA&IIIB

Metastatic Breast Cancer: Stage IV

SCREENING OF BREAST CARCINOMA :

Recommendations by American Cancer Society in screening of carcinoma breast :

1. Women with an average risk of breast cancer should undergo regular screening mammography starting at age 45 years.
 - o 1a. Women aged 45 to 54 years should be screened annually.
 - o 1b. Women 55 years and older should transition to biennial screening or have the opportunity to continue screening annually.
 - o 1c. Women should have the opportunity to begin annual screening between the ages of 40 and 44 years.
2. Women should continue screening mammography as long as their overall health is good and they have a life expectancy of 10 years or longer.
3. The ACS does not recommend clinical breast examination for breast cancer screening among average-risk women at any age.

PREVENTION OF BREAST CARCINOMA :

Control of specific modifiable breast cancer risk factors as well as effective integrated prevention of non-communicable diseases which

promotes healthy diet, physical activity and control of alcohol intake, overweight and obesity, could eventually have an impact in reducing the incidence of breast cancer in the long term.

MANAGEMENT OF BREAST CARCINOMA

The various modalities used in the treatment of breast carcinoma are:

- I. *Surgery*
- II. *Radiotherapy*
- III. *Hormone Therapy*
- IV. *Chemotherapy*

- Multi-modality approach is routinely adopted. Single approach is often ineffectual in the treatment of this disease.

SURGICAL MODALITIES OF TREATMENT :

- Total (Simple) Mastectomy
- Total Mastectomy with Axillary Clearance
- Modified Radical Mastectomy [MRM]
 - Patey's Operation

- Scanlon's Operation
- Auchincloss' MRM
- Radical Mastectomy of Halsted
- Conservative Breast Surgeries
 - Wide Local Excision [WLE]
 - Lumpectomy
 - Quadrantectomy
 - Toilet Mastectomy
 - Skin-Sparing/Keyhole Mastectomy [SSM]

Loco-Regional therapy include:

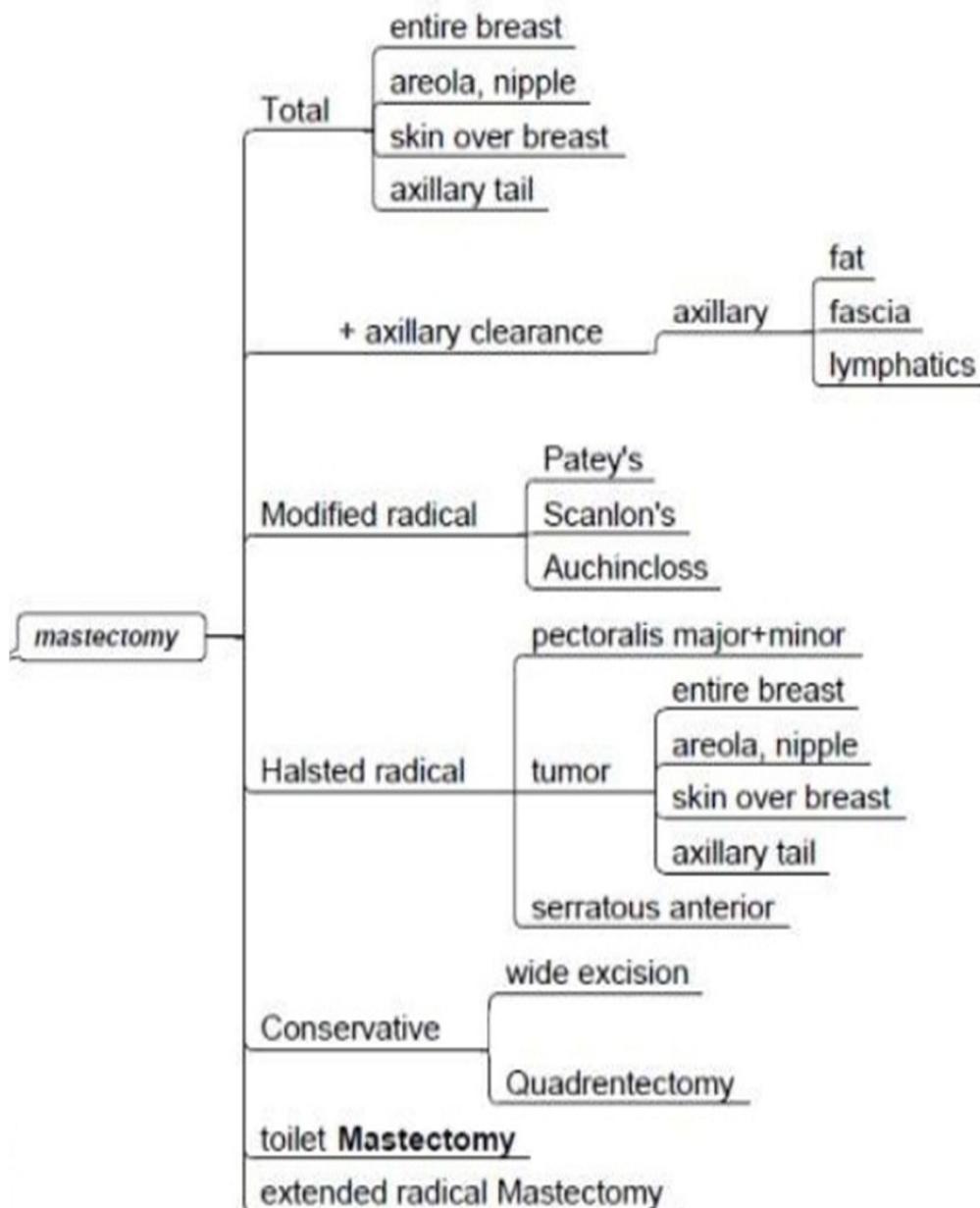
- a. Surgery
- b. Radiotherapy

Systemic therapy:

- a. Chemotherapy
- b. Hormonal therapy

c. Monoclonal antibodies.

However surgery is important to get rid of gross cancer which decreases the tumor burden of the patient and results in increased survival chances and improved prognosis for the patient.



Indications for Simple Mastectomy :

- Stage I and stage IIa carcinoma
- Large cancers that persist after adjuvant therapy
- Multifocal or multicentric CIS.

Indications for Modified Radical Mastectomy [MRM] :

- LABC [Locally advanced Breast Carcinoma]
- Residual large cancers that persist after adjuvant therapy
- Multifocal or multicentric disease.

Modifications of Modified Radical Mastectomy [MRM] :

1. Patey's procedure: – The Pectoralis minor is removed for better visualization and easy dissection of level III lymph nodes.
2. Scanlon's procedure: – Pectoralis minor is retracted to expose level III nodes and dissected out.
3. Auchincloss procedure: – Level I and II lymph nodes are cleared, level III nodes are left behind.

Breast Conservation Surgery :

Components of Breast Conservation Surgery are as follows :

- Wide local excision/Lumpectomy or Quadrantectomy
- +
- Axillary lymph node clearance +
- Radiotherapy.

Indications for Breast Conservation Surgery [BCS] :

- Stage 0 (CIS), Stage I, Stage IIa breast carcinoma.
- Single lesion.
- Clinically downstagedLABC

Advantages of Breast Conservation Surgery :

- Maintenance of appearance and function of breast.
- Disease free interval is same as Modified Radical mastectomy.
- Better quality of life and psychological advantage.

Contraindications of Breast Conservation Surgery [BCS]:

- Multicentric tumor.

- Positive margins after excision.
- Size > 4cm (relative).
- Advanced stages.
- No access to radiation/ poor patient compliance.
- C/I for radiation: SLE/ Rheumatoid arthritis/ Scleroderma/ pregnancy/ prior chest radiation.

RADIOTHERAPY :

- Indications :
 - Conservative Breast Surgery adjuvant [Breast]
 - Total Mastectomy [Axilla]
 - High-risk of relapse patients
 - Invasive Carcinoma
 - Extensive in-situ Carcinoma
 - Age < 35 years
 - Multifocal disease
 - Bone secondaries [Palliative]

- Atrophic Schirrous Carcinoma [Curative]
- Pre-Operatively (reduce tumour size and downstage)
- >4 +’ve Axillary LN, Pectoral fascia involvement, positive surgical margins, Extra-nodal spread.

Chest Wall	Axilla	Post-BCS
<ul style="list-style-type: none"> ▪ T3 tumour>5cm ▪ Residual disease ▪ LABC ▪ Positivemargin/close surgical margin <2cm ▪ Conservative surgery ▪ Inflammatory Carcinoma 	<ul style="list-style-type: none"> ▪ >4 nodes +’ve ▪ Extra-nodal spread ▪ Axillary status unknown/ not assessed 	<ul style="list-style-type: none"> ▪ Local + Axilla ▪ Tangential fields: 50 Gy-25 fractions-5 weeks ▪ Another 10 Gy to tumour bed ▪ Internal Mammary and Supra-clavicular area may be included in the radiation field.

HORMONE THERAPY :

❖ Medical

- i. Oestrogen Receptor Antagonists – *Tamoxifen* 20 mg
- ii. Progesterone receptor Antagonist
- iii. Oral Aromatase Inhibitors – *Letrozole* 2.5 mg OD, *Anastrozole*, *Exemestane*; *Aminoglutethimide* [Medical Adrenalectomy]
- iv. Androgens – *inj. Testosterone propionate* 100mg IM three times a week, *Fluoxymestrone* 30 mg daily
- v. LHRH Agonists – *Goserelin* (Zoladex) [Medical Oophorectomy]
- vi. Progestogens – *Medroxyprogesterone acetate* 400 mg

❖ Surgical

- i. Ovarian Ablation by
 - a. Surgery (Bilateral Oophorectomy)
 - b. Radiation
- ii. Adrenalectomy
- iii. Pituitary ablation.

CHEMOTHERAPY :

A. Adjuvant Chemotherapy

- Administration of Cytotoxics after surgery
- Eliminate clinically undetectable distant spread

B. Neoadjuvant Chemotherapy

- Administration of Cytotoxics in large operable tumours before surgery
- Reduce loco-regional tumour burden – downstage
- Amenable to surgical resection after 3 doses

C. Palliative Chemotherapy

- Advanced Ca Breast
- Metastatic Ca Breast.

Indications :

- All node +’ve patients
- Primary tumour >1 cm in size
- Poor prognostic factors

- Advanced Ca Breast
- Inflammatory Ca Breast
- Metastatic Ca Breast

Drugs which are used in chemotherapy are :

CMF Regime	CAF Regime	MMM Regime
<ul style="list-style-type: none"> ▪ Cyclophosphamide ▪ Methotrexate ▪ 5-Fluorouracil 	<ul style="list-style-type: none"> ▪ Cyclophosphamide ▪ Adriamycin ▪ 5-Fluorouracil 	<ul style="list-style-type: none"> ▪ Methotrexate ▪ Mitomycin-C ▪ Mitozantrone

The various Chemotherapy regimes are :

- CAF and CMF – commonly used, monthly/3 weeks cycles for 6 months
- Taxanes :
 - Eg: *PACLITAXEL* and *DOCETAXEL*
 - G2/M phase arrestors
 - Used in Metastatic Ca Breast

❖ *1st line*: CMF > CAF > MMM

❖ *2nd line*: Taxanes

❖ *3rd line*: Gemcitabine

METASTATIC CARCINOMA OF BREAST

Metastatic carcinoma of breast is the blood spread of the disease into the systemic circulation such as bones , lungs . liver and brain. It is evaluated by various imaging modalities such as PET-Scan , CT chest , CECT Abdomen and CT Brain. Tissue study such as ER / PR / HER-2 Neu receptor status is important in the treatment of metastatic disease since it includes hormonal therapy in the palliative care of the patient to prolong the life of the patient.

Bone is the most common site of metastasis. Spread to the vertebra is through posterior intercostals veins and Batson's Venous plexus which is valveless. Vertebrae are the most common bones involved in bone metastasis. The spread of breast carcinoma to the lungs causes 'cannon ball secondaries' which is typical of metastasis of breast carcinoma. Median survival time for metastatic breast cancer is 24 months.

BENIGN CONDITIONS OF BREAST

Most women who present at the breast clinics have benign breast conditions which range from non-specific breast pain to discrete lumps such as fibroadenomas. Benign breast lesions consist of heterogeneous conditions which in the majority of women go undetected and are identified incidentally during screening mammography or in the surgical specimens for cancer.

Although most women present with benign breast conditions than with cancer, there is more written about breast cancer than benign lesions because this is the most common malignant tumour in women.

Nomenclature of benign breast lesions was confusing in the past with the use of terms such as aberrations of normal development and involution (ANDI), which is supposed to encompass both the pathogenesis and the degree of abnormality.

FIBROCYSTIC DISEASE OF BREAST :

This is the most common lesion of the female breast. Cystic lobular hyperplasia & fibrocystic disease of the breast are the two common acceptable descriptions. Cystic hyperplasia is a variant of normal cyclic changes in the breast that occur with menstruation. This hyperplasia

usually presents bilaterally in the upper outer quadrant of the breast & is most painful in the premenstrual period.

The exact cause of fibrocystic disease is unknown :

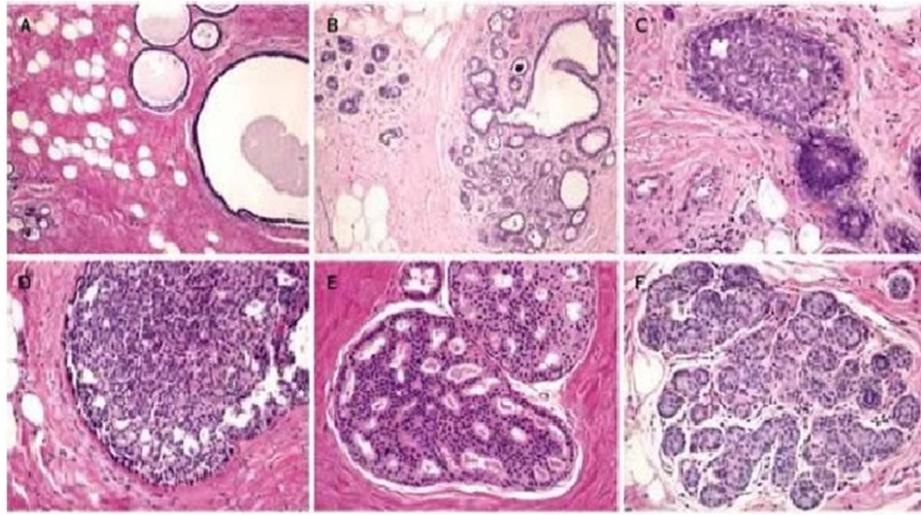
- Hormonal basis :
 - Oestrogen& Progesterone
 - Prolactin
 - Thyroid
- Methylxanthiones
- Trauma is not a cause.

Ultrasonography is the investigation of choice for diagnosis of fibrocystic disease. Diagnosis is done by Fine Needle Aspiration Biopsy.

Treatment of Fibrocystic disease is either medical or surgical treatment. Medical treatment is given by hormonal pills - estrogen or progesterone. Surgical treatment is indicated if there is an underlying lump associated with fibrocystic disease of the breast.



Fibrocystic Disease:



- A. Simple Fibrocystic change.
- B. Lobular hyperplasia without atypia (adenosis)
- C,D - Ductal hyperplasia without atypia (E. with atypia - cribriform)
- F. Lobular hyperplasia.

FIBROADENOMA :

Fibroadenomas are benign tumors composed of stromal and epithelial elements. The tumors are commonly seen in young women. Fibroadenoma is a common well - circumscribed lesion of the breast & develop in the breast prior to menopause. Pericanalicular tumors usually being found below the age of 30 & intracanalicular tumors there after. Either breast may be affected and multiple & successive tumors may develop in the same or contra-Lateral breast.

The pericanalicular tumor forms a firm discrete mass, which is freely mobile in the breast tissue, hence the name (BREAST MOUSE)

The intracanalicular tumors tends to be softer & may grow to such size that there is necrosis of the overlying skin. To such a condition the terms serocystic disease of bordie OR cystasarcomaphylloides OR Giant fibroadenoma have been given. However despite the implication of malignancy in the later term, the tumor is benign.

Fibroadenoma is diagnosed by ultrasonogram breast and Fine needle Aspiration biopsy.

Treatment is usually Surgical excision of the breast lump or Reassurance if the size of the fibroadenoma is less than 3 cm.

FIBROADENOMA

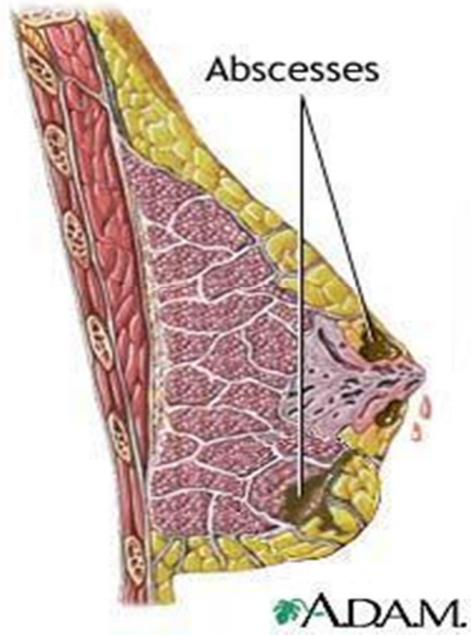


BREAST ABSCESS :

This condition is usually found during lactation .as role the infecting organism is staphylococcus aureus, and less commonly streptococcus pyogenes . The usual mode of infection is via the nipple, the infection being carried by suckling infant in the nasopharynx. The infection is at first limited to the segment drained by the lactiferous duct but it may subsequently spread to involve other areas of the breast. Ultrasonography can be used for confirmation of diagnosis. Treatment is either conservative management if the breast abscess has not evolved and it is still in the stage of cellulitis. Breast abscess is drained as an emergency procedure if there is a localised collection within the breast tissue.

Early treatment of breast abscess is highly significant since the delay of treatment will lead to an increased spread of the infection within the breast tissues and increased in morbidity of the patient.

The usual surgical treatment is incision and drainage along with the placement of a drain which results in expulsion of the remnant pus collection within the breast tissue and decreases the chances of spread of the infection within the breast parenchyma.



MASTALGIA :

Mastalgia is breast pain and is generally classified as either cyclical (associated with menstrual periods) or noncyclic. Breast pain of any type is a rare symptom of breast cancer, only 7% of breast cancer have mastalgia as the only symptom. Most mastalgia is of minor to moderate severity and accepted as part of the normal changes that occur in relation to menstrual cycle.

Cyclic mastalgia:

Begins since average 34 y/o, relieved by menopause, physical activity can increase the pain, e.g. lifting and prolonged use of arm.

Non-cyclic mastalgia:

Affects older women (mean age 43), arises from chest wall. Breast itself or outside the breast.

- Treatment is by prescription of DANAZOL 200-300 mg daily. Reduced to 100 mg daily or on alternative day, given on days 14-28 of menstrual cycle, after pain relief. Responses are usually seen within 3 months. Weight gain, acne and hirsutism are side effects.

METHODOLOGY

STUDY DESIGN

PROSPECTIVE STUDY

STUDY PERIOD :

JUNE 2016 – JULY 2017

STUDY POPULATION :

Female patients attending the General Surgery Out-patient department in Coimbatore Medical College and Hospital.

METHODOLOGY -

SAMPLE SIZE: 50

INCLUSION CRITERIA:

1. Age group more than 15
2. Patients willing to give consent for the study
3. Patients with mastalgia
4. Patients complaining with Nipple discharge.
5. Patients without breast lump
6. Patients willing for Follow-up

EXCLUSION CRITERIA:

1. Patients with breast lump
2. Patients with associated comorbidities such as diabetes, advanced malignancy, steroid intake, radiotherapy, hepatic and renal insufficiency.
3. Pregnant patients
4. Patients with Psychiatric illness
5. Patients previously diagnosed with breast diseases.

MATERIALS AND METHODS-

A cross sectional study of female patients attending general surgery outpatient department with breast pain and nipple discharge without lump and correlate with breast cancer in department of general surgery at Coimbatore Medical College and Hospital.

RESULTS

6. AGE DISTRIBUTION :

Table 2: Age distribution

Age distribution	Frequency	Percent (%)
<20	12	24.0
21-30	14	28.0
31-40	16	32.0
>40	8	16.0
Total	50	100.0

From the above tabular column , it shows the age distribution of the presentation of breast related complaints by the patients in the study population. The most common age group presenting with breast related complaints is 31 – 40 years of age and the least common age group involved is > 40 years of age.

The below given graph explains as follows.

Age distribution

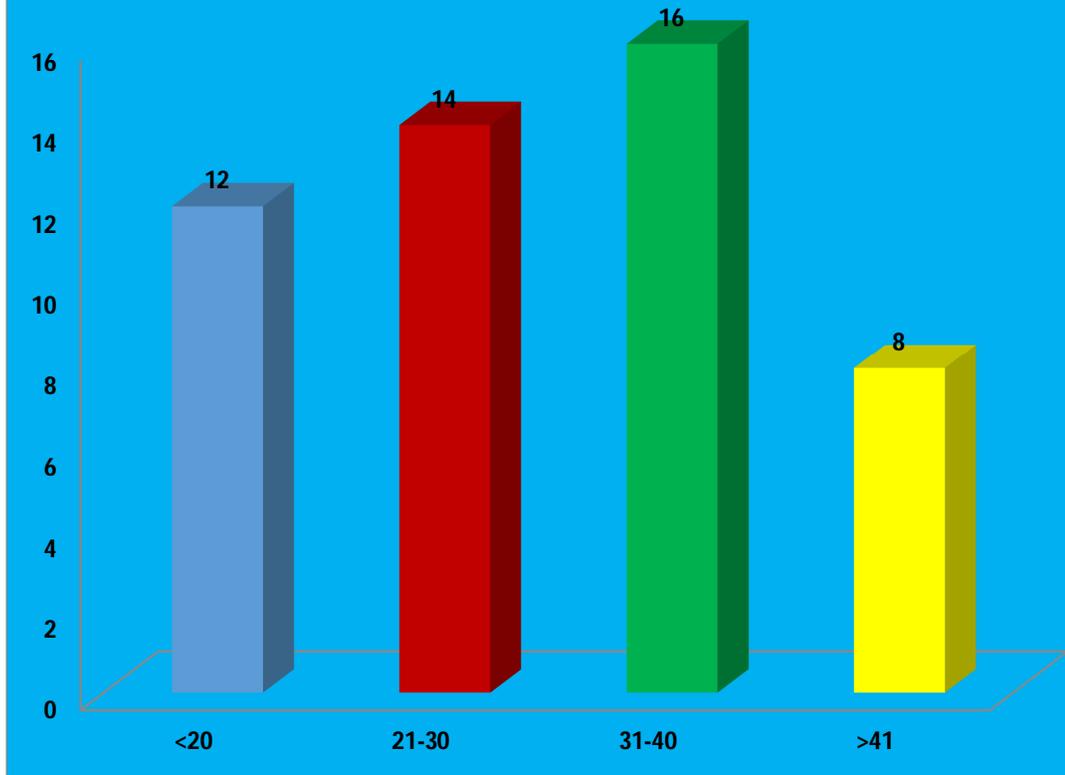


Table – 2 – MEAN SD FOR AGE

NUMBER OF PATIENTS	MEAN +/- SD	RANGE
50	30 +/- 9	16 - 44

The above tabular column gives the mean and the SD for the age.

The explanation as follows.

Table 3: Pain

Pain	Frequency	Percent (%)
Present	19	38.0
Absent	31	62.0
Total	50	100.0

From the above tabular column , it is shown that the frequency of breast pain in the study population is present only in 38% of the study population. Breast pain is absent in 62% of the patients. The explanation is given by the following graph as follows.

Pain

PRESENT ABSENT

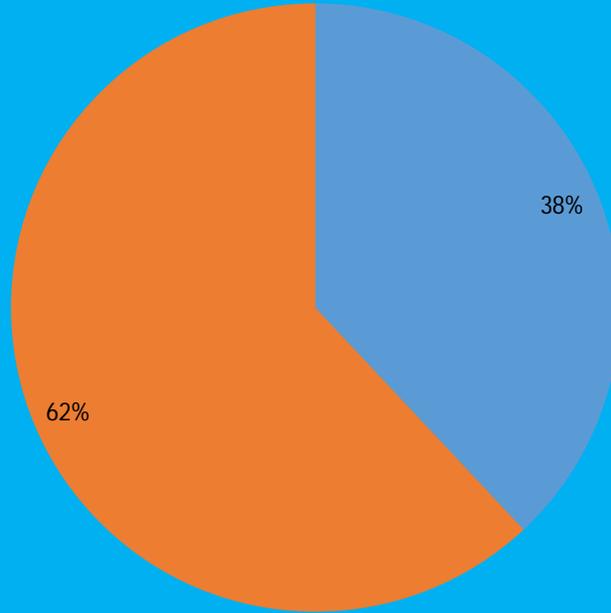


Table 4: Discharge

Discharge	Frequency	Percent (%)
Present	39	78.0
Absent	11	22.0
Total	50	100.0

From the above tabular column , it is shown that breast discharge is present in 78% of the study population and it is absent in 22% of the study population. Breast discharge is more common in the study population. The explanation given by the graph as follows.

DISCHARGE

■ PRESENT ■ ABSENT

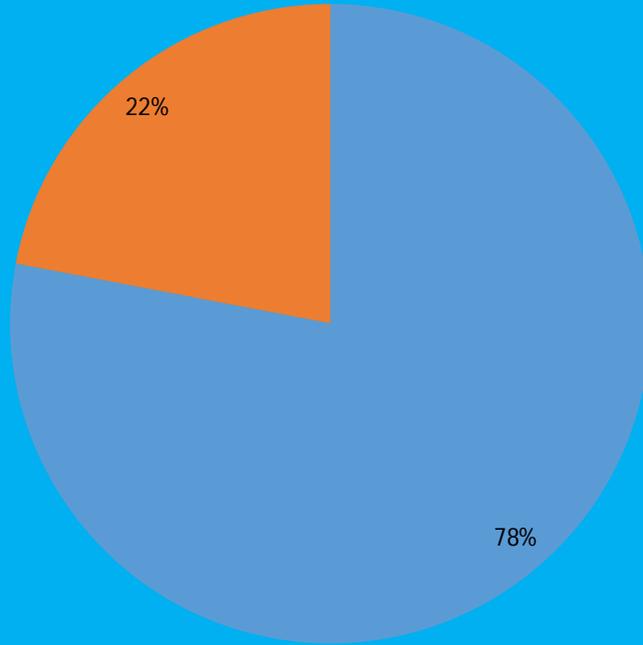


Table 6: Mammogram

Mammogram	Frequency	Percent (%)
Benign	49	98.0
Malignant	1	2.0
Total	50	100.0

From the above tabular column , it is shown that mammography done in the study population reveals benign findings which accounts to 98% of the study population and malignant findings were found in 1 of the patients of the study population which accounts to 2% of the study population. Hence , in this study most common diagnosis in breast related complaints assessed by the surgeon in the general surgery OPD is benign breast disease and malignancy is a less common diagnosis without the presence of breast lump. The explanation in the graph is as follows.

MAMMOGRAM

■ BENIGN ■ MALIGNANT

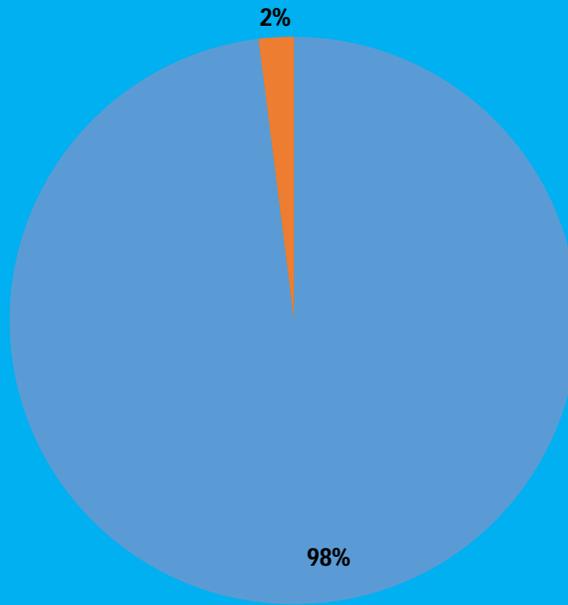


Table 7: Ultrasound

Ultrasound	Frequency	Percent (%)
Benign	49	98.0
Malignant	1	2.0
Total	50	100.0

From the above tabular column , it is shown that Ultrasound Both breasts done in the study population reveals that benign features are more common than malignant features which accounts to 98% and 2% of the study population respectively. This indicates that patients presenting to the general surgery OPD with breast related complaints without the presence of lump are most commonly diagnosed to have benign breast related diseases and malignancy is diagnosed very less commonly as compared to benign breast disease. The explanation is given in the graph as follows.

ULTRASOUND

■ BENIGN ■ MALIGNANT

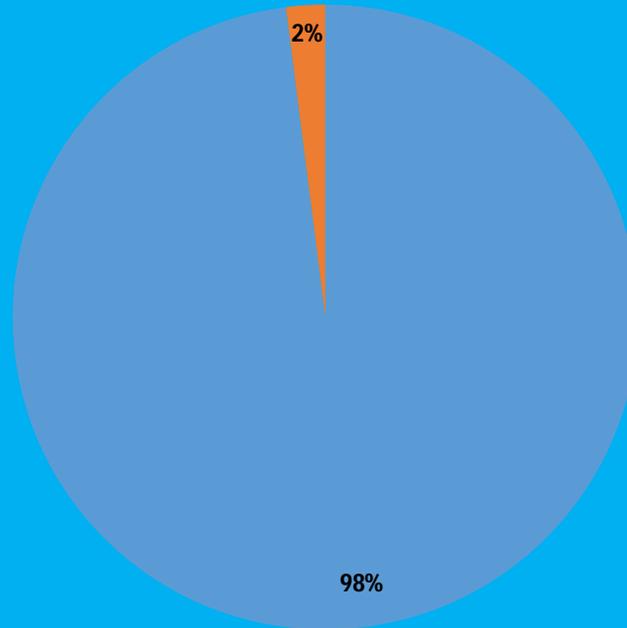


Table 8: FNAC

FNAC	Frequency	Percent (%)
Breast Abscess	7	14.0
Fibroadenoma	5	10.0
Fibroadenosis	16	32.0
Fibrocystic disease	8	16.0
Invasive Ductal Carcinoma	1	2.0
Non specific inflammation	12	24.0
Proteinaceous Material	1	2.0
Total	50	100.0

From the above tabular column , it is shown that Fine Needle Aspiration Cytology (FNAC) done in the study population gives the most common diagnosis as Fibroadenosis which accounts to 32% of the population and the incidence of Invasive ductal carcinoma was found only in 1 of the patients of the study population which accounts to 2% of the study population.

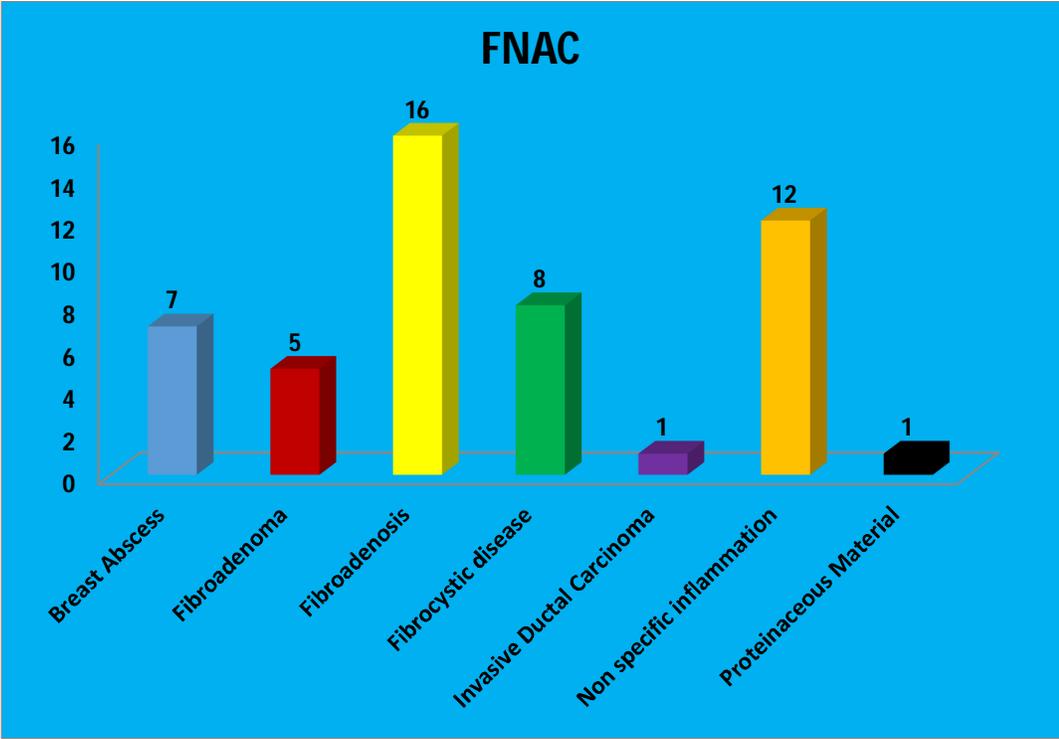
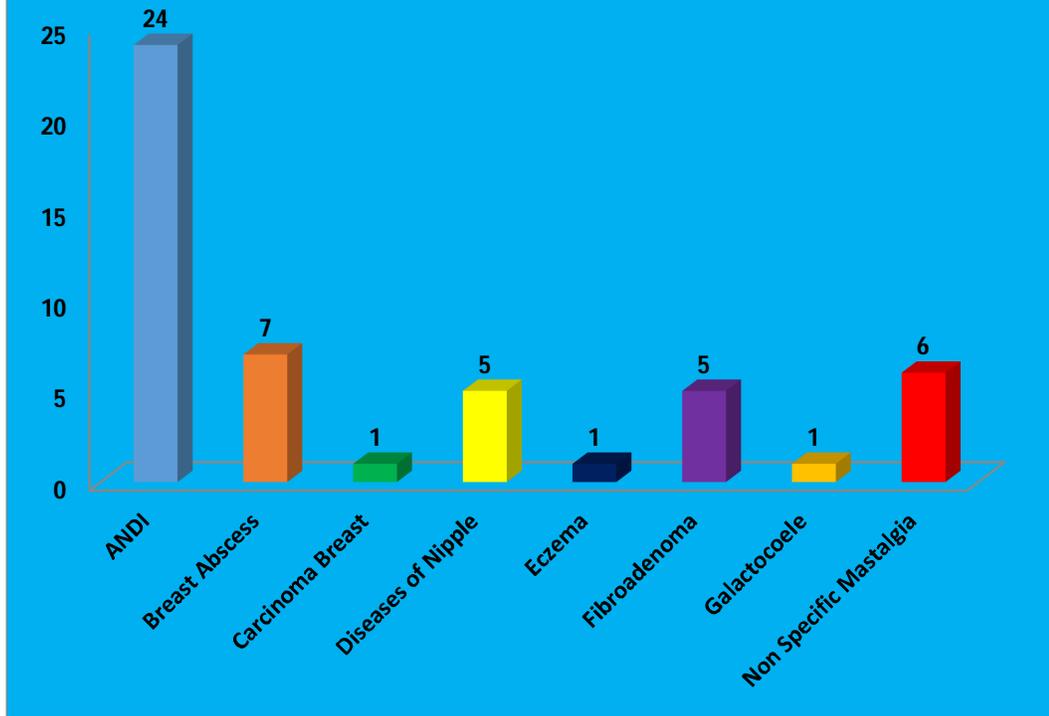


Table 5: Diagnosis

Discharge	Frequency	Percent (%)
ANDI	24	48.0
Breast Abscess	7	14.0
Carcinoma Breast	1	2.0
Diseases of Nipple	5	10.0
Eczema	1	2.0
Fibroadenoma	5	10.0
Galactocoele	1	2.0
Non Specific Mastalgia	6	12.0
Total	50	100.0

From the above tabular column , it is shown that the diagnosis of Aberrations of Normal development and Involution (ANDI) is the most common diagnosis made from the study population whose frequency is 48%. The least common diagnoses made are Carcinoma breast , Eczema and Galactocoele whose frequency is 10% respectively. The explanation is given in the graph as follows.

DIAGNOSIS



DISCUSSION

The presentation of breast related complaints has seen an acute increase in frequency in the recent times due to the increase in population education and enlightenment of the incidence and complications of breast carcinoma and its management. Most patients presenting to the general surgery OPD with breast related complaints will have a benign diagnosis but there should be a keen watch out for symptoms and signs which indicate the presence of carcinoma breast which leads to a complete different course of management than the diagnosis of benign breast diseases which has a less minimal and less debilitating disease outcome rather than the predecessor.

In our study it is shown that the most common age of presentation of breast related complaints by the study population is 31 – 40 years of age and the least common age of presentation is > 40 years of age.

In our study the mean age of presentation of breast related complaints is 30 +/- 9.

In our study , the incidence of breast pain is present in 38% and in 62% of the study population breast pain is absent. This indicates that breast pain is most commonly absent in benign breast diseases.

In our study , the incidence of breast discharge is present in 39 patients which accounts to 78% of the study population and is absent in 11 patients which accounts to 22% of the study population. This indicates that breast discharge is more common present in benign breast diseases.

In our study , mammogram was done for the study population in which the presence of benign features were found in 49 patients which accounts to 98% of the study population and presence of malignant features were found in 1 patient which accounts to 2% of the study population. This indicates that benign breast diseases are more common in the study population who present to the general surgery OPD without the presence of breast lump and the incidence of malignancy in the study population who present to the general surgery OPD without the presence of breast lump is less commoner than the incidence of benign breast diseases.

In our study , ultrasound both breasts was done for the study population in which the presence of benign features were found in 49 patients which accounts to 98% of the study population and presence of malignant features were found in 1 patient which accounts to 2% of the study population.

In our study , Fine Needle aspiration cytology was done for the study population in which the most common diagnosis made was fibroadenosis which was found in 16 patients which accounts to 32% of the study population. Non specific inflammation was given as the second most common finding in the patients of the study population which indicates the presence of Non specific mastalgia. The finding of invasive ductal carcinoma was found only in 1 patient which accounts to 2% of the study population and hence carcinoma breast was the least commonly diagnosed in patients presenting with breast related complaints without the presence of breast lump.

In our study , the most common final diagnosis made in the study population was Aberrations of Normal development and Involution (ANDI) which includes the cytological diagnoses of fibroadenosis , fibroadenoma and fibrocystic disease. The diagnosis of breast abscess was made in 7 patients which accounts to 14% of the study population and the diagnosis of Non specific mastalgia was made in 6 patients which accounts to 12% of the study population.

The diagnosis of Carcinoma breast was made only in 1 patient which accounts to 2% of the study population and hence it indicates that the incidence of Carcinoma breast is very less likely to be diagnosed in patients presenting with breast related complaints without the presence of breast lump. The diagnosis of Benign breast diseases is more common and has a very good prognosis with a simple line of conservative means of management.

CONCLUSION

The incidence of benign breast diseases is more common in patients presenting to the surgical out patient department with complaints of breast pain and nipple discharge without the presence of breast lump. The incidence of carcinoma breast is less commoner than benign breast diseases in the patients presenting to the surgical out patient department without the presence of breast lump. The most common benign breast disease is found to be Aberrations of Normal development and involution (ANDI). Though the incidence of carcinoma breast in patients presenting with breast pain and breast discharge without the presence of breast lump is very minimum , the importance of further investigations such as Mammography , Ultrasound Both breasts and Fine Needle Aspiration Cytology should be emphasized in each of the patients to rule out the diagnosis of carcinoma breast. The management of benign breast disorders is more commonly a conservative line of approach by using various non invasive approaches such as medical management.

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PROFORMA

SI No :

Opd/IpdNo :

Name :

Age :

Sex :

Presenting Symptoms:

- Breast pain
- Breast discharge

Past history:

- Medical history
- Surgical history

Personal history:

- Menstrual history
- Obstetric history
- History of OCP / infertility treatment

CLINICAL EXAMINATION:

GENERAL EXAMINATION :

VITALS :

SYSTEMIC EXAMINATION :

EXAMINATION OF THE BREAST :

- Inspection
- Palpation
- Axillary and Supraclavicular Examination.

CLINICAL IMPRESSION :

INVESTIGATIONS

Basic investigations

Ultrasound Bilateral Breasts

Mammogram

FNAC

Provisional diagnosis:

FNAC findings :

Final diagnosis:

Follow up:

xggj y; gotk;

bgah; :

taJ :

ghypdk; :

Kfthp :

nfhi tmurkUj;Jtf; fy;Y}hpkUj;Jtki dapy; kUj;Jth;
J.rjP#Fkhh; mth;fs; j i yi kapy; ei lbgWk; khhgftypkwWk;
khhgpy; elh; toj y; glwWneha;fFhuz khvdgi j fz ;l wpa;k;
, ej Mat;py; KG rkkkj;JLd; fye;Jbfhssrkkj pf;f;pnwd;
, ej Mat;py; vdi dgwwptptu' fi sghJfhggll d; , ej Mat;py;
btspapl MI nrgi d , yi yvd;Wbj hptpj ;Jf; bfhs;f;pnwd;
vej neuj j pYk; Mat;py; , Ue;Jvej neuj j pYk; tpyf;f;pf; bfhs;sk;
chpi kcz ;Lvd;Wmwpntd;

, l k;:

nj j p:

i fbahggk; /nui f

MASTER CHART

S.no	Name	Age	Sex	OP No.	Pain	Discharge	Follow up	Diagnosis	Mammogram	Ultrasound	FNAC
1	Vanitha	34	F	412713		Present	1 Year	ANDI	Benign	Benign	Fibroadenosis
2	Poovathal	42	F	413246	Present		1 Year 2 months	Fibroadenoma	Benign	Benign	Fibroadenoma
3	Annie	40	F	414201	Present	Present	1 year 6 months	Breast Abscess	Benign	Benign	Breast Abscess
4	Shanthi	17	F	421813	Present	Present	2 years	Breast Abscess	Benign	Benign	Breast Abscess
5	Sarala	27	F	422486		Present	1 year 3 months	ANDI	Benign	Benign	Fibroadenosis
6	Meena	22	F	424187		Present	1 year	ANDI	Benign	Benign	Fibroadenosis
7	Rajeshwari	35	F	424637	Present		1 year 4 months	Fibroadenoma	Benign	Benign	Fibroadenoma
8	Pappathi	19	F	425127	Present	Present	1 year 5 months	Breast Abscess	Benign	Benign	Breast Abscess
9	Chandrika	16	F	425263		Present	2 years	ANDI	Benign	Benign	Fibroadenosis
10	Rasathi	44	F	427102		Present	1 year 3 months	ANDI	Benign	Benign	Fibroadenosis
11	Majula	20	F	427621	Present		1 year 6 months	Fibroadenoma	Benign	Benign	Fibroadenoma
12	Ramya	28	F	427886		Present	1 Year 3 months	ANDI	Benign	Benign	Fibroadenosis
13	Haseena Begum	41	F	428114	Present		1 Year	Fibroadenoma	Benign	Benign	Fibroadenoma
14	Kowsalya	18	F	428244		Present	1 year 2 months	Diseases Of Nipple	Benign	Benign	Non specific inflammation
15	Radha	32	F	428847		Present	1 year 6 months	ANDI	Benign	Benign	Fibrocystic disease
16	Santhiya	16	F	429934		Present	1 year 7 months	ANDI	Benign	Benign	Fibrocystic disease
17	Jothi	33	F	430109		Present	1 year 9 months	ANDI	Benign	Benign	Fibroadenosis
18	Clara Mary	29	F	430155		Present	1 year 4 months	Diseases of Nipple	Benign	Benign	Non specific inflammation
19	Sharmila	19	F	430220		Present	1 year	ANDI	Benign	Benign	Fibroadenosis
20	Saraswathy	25	F	430281	Present		1 year 10 months	Fibroadenoma	Benign	Benign	Fibroadenoma
21	Sudha	33	F	430429		Present	2 years	Diseases of Nipple	Benign	Benign	Non specific inflammation
22	Muthulakshmi	41	F	430657		Present	1 year	ANDI	Benign	Benign	Fibrocystic disease
23	Vennila	33	F	430699		Present	1 year 6 months	ANDI	Benign	Benign	Fibrocystic disease
24	Gracie	21	F	430739		Present	1 year 3 months	Galactocoele	Benign	Benign	Proteinaceous Material
25	Tamil Selvi	28	F	431216		Present	1 year 5 months	Diseases of Nipple	Benign	Benign	Non specific inflammation

26	Arokiya Pavithra	24	F	431414		Present	1 year 2 months	Eczema	Benign	Benign	Non specific inflammation
27	Sarojini	32	F	431500		Present	1 year 4 months	ANDI	Benign	Benign	Fibroadenosis
28	Rajee	28	F	431610	Present		1 year 8 months	Non Specific Mastalgia	Benign	Benign	Non specific inflammation
29	Manonmani	44	F	431590		Present	1 year 9 months	ANDI	Benign	Benign	Fibrocystic disease
30	Ambika	41	F	431713	Present	Present	2 years	Breast Abscess	Benign	Benign	Breast Abscess
31	Udhayanila	20	F	431917		Present	1 year 2 months	ANDI	Benign	Benign	Fibroadenosis
32	Savithri	43	F	431990	Present	Present	1 year 5 months	Breast Abscess	Benign	Benign	Breast Abscess
33	Nagalakshmi	19	F	432014		Present	1 year 5 months	ANDI	Benign	Benign	Fibrocystic disease
34	Lashmi	39	F	432069		Present	1 year 2 months	ANDI	Benign	Benign	Fibroadenosis
35	Ranganayaki	43	F	432148		Present	1 year	Diseases of Nipple	Benign	Benign	Non specific inflammation
36	Baby	38	F	432221	Present	Present	1 year	Breast Abscess	Benign	Benign	Breast Abscess
37	Vijaya	27	F	432299	Present		1 year 6 months	Non Specific Mastalgia	Benign	Benign	Non specific inflammation
38	Thangamani	28	F	432514		Present	1 year 2 months	ANDI	Benign	Benign	Fibrocystic disease
39	Jaya	40	F	432604	Present		1 year 8 months	Non Specific Mastalgia	Benign	Benign	Non specific inflammation
40	Nilopher Nisha	22	F	432929	Present	Present	1 year	Breast Abscess	Benign	Benign	Breast Abscess
41	Shifa	17	F	433053	Present		1 year 7 months	Non Specific Mastalgia	Benign	Benign	Non specific inflammation
42	Sivagami	36	F	433068		Present	1 year	ANDI	Benign	Benign	Fibroadenosis
43	Yasodha	21	F	433107		Present	1 year 2 months	ANDI	Benign	Benign	Fibroadenosis
44	Vidhya	20	F	433268	Present		1 year 9 months	Non Specific Mastalgia	Benign	Benign	Non specific inflammation
45	Vani	37	F	433157		Present	1 year	ANDI	Benign	Benign	Fibrocystic disease
46	Chinnal	40	F	433210	Present	Present	1 year	Carcinoma Breast	Malignant	Malignant	Invasive Ductal Carcinoma
47	Jesintha	35	F	433316		Present	1 year 2 months	ANDI	Benign	Benign	Fibroadenosis
48	Suganya	34	F	433572	Present		8 months	Non Specific Mastalgia	Benign	Benign	Non specific inflammation
49	Nithya	30	F	433605		Present	1 year	ANDI	Benign	Benign	Fibroadenosis
50	Anushya	19	F	433980		Present	1 year 2 months	ANDI	Benign	Benign	Fibroadenosis