"A COMPARATIVE STUDY BETWEEN FNAC, TRUCUT BIOPSY AND HISTOPATHOLOGICAL EXAMINATION IN BREAST LUMPS IN TIRUNELVELI MEDICAL COLLEGE HOSPITAL, TIRUNELVELI"

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M.S. (GENERAL SURGERY)

BRANCH – I

Register No: 221711352

DEPARTMENT OF GENERAL SURGERY

TIRUNELVELI MEDICAL COLLEGE

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PROF. Dr.D.ALEX ARTHUR EDWARDS, M.S.,
Professor and HOD of General Surgery
Tirunelveli Medical College,
Tirunelveli

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Professor & HOD, Department of General Surgery, Tirunelveli Medical College Tirunelveli in partial fulfilment of the requirements for the degree of M.S in GENERAL SURGERY.

PROF. Dr.D.ALEX ARTHUR EDWARDS, M.S.,
Professor and HOD of General Surgery
Tirunelveli Medical College,
Tirunelveli

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Dr. S.M. KANNAN M.S, M.Ch (Uro)
DEAN
Tirunelveli Medical College
Tirunelveli

DECLARATION

I solemnly declare that the dissertation titled "**A COMPARATIVE STUDY BETWEEN FNAC, TRUCUT BIOPSY AND HISTOPATHOLOGICAL EXAMINATION IN BREAST LUMPS IN TIRUNELVELI MEDICAL COLLEGE HOSPITAL, TIRUNELVELI**" is done by me at Tirunelveli Medical College hospital, Tirunelveli. I also declare that this bonafide work or a part of this work was not submitted by me or any others for any award, degree, or diploma to any other University, Board, either in or abroad. The dissertation is submitted to The Tamilnadu Dr. M.G.R. Medical University towards the partial fulfilment of requirements for the award of M.S. Degree (Branch I) in General Surgery.

Date:
Place: Tirunelveli

Dr.ARUNRAJA K.K
Postgraduate Student,
Register No: 221711352
M.S.General Surgery,
Department of General Surgery,
Tirunelveli Medical College,
Tirunelveli.

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INSTITUTIONAL RESEARCH ETHICS COMMITTEE
TIRUNELVELI, STATE OF TAMILNADU, SOUTH INDIA PIN 627011
91-462-2572733-EXT; 91-462-2572944; 91-462-2579785; 91-462-2572611-16
online@tvmc.ac.in, tirec@tvmc.ac.in; www.tvmc.ac.in

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PROTOCOL TITLE: A COMPARATIVE STUDY BETWEEN FNAC, TRUCUT BIOPSY AND HISTOPATHOLOGICAL EXAMINATION IN BREAST LUMPS IN TIRUNELVELI MEDICAL COLLEGE HOSPITAL, TIRUNELVELI
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DESIGNATION OF PRINCIPAL INVESTIGATOR: POST GRADUATE STUDENT
DEPARTMENT & INSTITUTION: GENERAL SURGERY, TIRUNELVELI MEDICAL COLLEGE, TIRUNELVELI

Dear Dr.ARUNRAJA.K.K, MBBS, The Tirunelveli Medical College Institutional Ethics Committee (TIREC) reviewed and discussed your application during the IEC meeting held on 01.09.2017.

THE FOLLOWING DOCUMENTS WERE REVIEWED AND APPROVED

1. TIREC Application Form ☐
2. Study Protocol ☐
3. Department Research Committee Approval ☐
4. Patient Information Document and Consent Form in English and Vernacular Language ☐
5. Investigator's Brochure ☐
6. Proposed Methods for Patient Accrual Proposed ☐
7. Curriculum Vitae of The Principal Investigator ☐
8. Insurance /Compensation Policy ☐
9. Investigator's Agreement with Sponsor ☐
10. Investigator's Undertaking ☐
11. DCGI/DGFT approval ☐
12. Clinical Trial Agreement (CTA) ☐
13. Memorandum of Understanding (MOU)/Material Transfer Agreement (MTA) ☐
14. Clinical Trials Registry-India (CTRI) Registration ☐

THE PROTOCOL IS APPROVED IN ITS PRESENTED FORM ON THE FOLLOWING CONDITIONS

1. The approval is valid for a period of 2 year/s or duration of project whichever is later
2. The date of commencement of study should be informed
3. A written request should be submitted 3weeks before for renewal / extension of The validity
4. An annual status report should be submitted.
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6. At The time of PI's retirement/leaving the institute, the study responsibility should be transferred to a person cleared by HOD
7. The PI should report to TIREC within 7 days of the occurrence of the SAE. If the SAE is Death, the Bioethics Cell should receive the SAE reporting form within 24 hours of the occurrence.
8. In the events of any protocol amendments, TIREC must be informed and the amendments should be highlighted in clear terms as follows:
   a. The exact alteration/amendment should be specified and indicated where the amendment occurred in the original project. (Page no. Clause no. etc.)
   b. The PI must comment how proposed amendment will affect the ongoing trial. Alteration in the budgetary status, staff requirement should be clearly indicated and The revised budget form should be submitted.
   c. If the amendments require a change in the consent form, the copy of revised Consent Form should be submitted to Ethics Committee for approval. If the amendment demands a re-look at the toxicity or side effects to patients, the same should be documented.
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   e. Approval for amendment changes must be obtained prior to implementation of changes.
   f. The amendment is unlikely to be approved by the IEC unless all the above information is provided.
   g. Any deviation/violation/waiver in the protocol must be informed.

STANDS APPROVED UNDER SEAL

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Registrar, TIREC
Tirunelveli Medical College, Tirunelveli – 627011
State of Tamilnadu, South India

Dr.J.SureshDurai, MD
Member Secretary, TIREC
Tirunelveli Medical College, Tirunelveli – 627011
State of Tamilnadu, South India

CERTIFICATE – II

This is certify that this dissertation work title "**A COMPARATIVE STUDY ON FINE NEEDLE ASPIRATION CYTOLOGY, TRUCUT BIOPSY AND FINAL HISTOPATHOLOGICAL EXAMINATION IN BREAST LUMPS IN TIRUNELVELI MEDICAL COLLEGE HOSPITAL**" of the candidate **Dr.ARUNRAJA K.K** with registration Number **221711352** for the award of M.S. Degree in the branch of **GENEARL SURGERY (I).** I personally verified the urkund.com website for the purpose of plagiarism check. I found that the uploaded thesis file contains from introduction to conclusion page and result shows **4 percentage** of plagiarism in the dissertation.

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CONTENTS

INTRODUCTION

Breast cancer is the second most common cancer among Indian females. The cumulative incidence in females until 64 years of age is 1-2%.[1]

Fine needle aspiration cytology (FNAC) is increasingly being used for preoperative breast cancer diagnosis in order to determine specific prognostic parameters in order to provide the best therapy for patients.[2]

Using imaging techniques such as ultrasound and mammography, the breast FNAC can be done on both palpable and non-palpable lesions. The advantages are-it provides a quick and accurate diagnosis, has therapeutic value under cystic conditions. The cytology scope now extends to the identification of benign and malignant breast lesions subtypes. It has been shown that FNA can provide additional information such as the tumor's intrinsic characteristics, thereby helping to predict tumor factors such as nuclear gradation, mitotic index, and DNA material.[4] Thus, it plays a major role as an important preoperative assessment procedure along with clinical correlation and imaging which are referred to as the "Triple test."[3]

Histologic type and nuclear grade are the two vital morphologic prognostic factors of carcinoma breast.[6]

Cytological grading has shown a positive correlation with the histological grade and therefore cytograding is significant in predicting the

histopathological grade. Cytological grade would thus provide relevant tumor biological behavior information and could be a useful parameter to consider when selecting neoadjuvanttherapy.[3] According to the Bethesda National Cancer Institute, the FNA tissue grade should be included in the FNAC report for prognostication purposes. The cytological grading system, which would closely correspond to the grading system used in histological material, was also given importance[2].

Over the past 25 years, FNAC has been commonly used to treat breast lesions. More recently, for the treatment of breast malignancies, Tru-cut biopsy was adopted. This may be due to the fact that tumor grading and an ER and PR receptor status can be conveniently performed on a Tru-cut biopsy compared to FNAC, and this information is used by the treating clinician who chooses to use chemotherapy as the first line of breast cancer treatment.[2]

Tru-cut biopsy's main objective is to provide a clear pre-operative breast lesion diagnosis and eliminate the need for an open surgical biopsy. Given its benefits, it is still used as an extra forensic method if FNAC fails to produce a diagnosis.[4] Some forms of lesions even with Tru-cut biopsy pose clinical challenges and involve mass excision. These include spindle cell lesions, cellular stroma fibroepithelial lesions, tumors of phyllodes, papillary lesions, mucinous lesions, radial scar, atypical proliferative lesions including atypical ductal hyperplasia, fibroepithelial atypia, and lobular neoplasm.[4]

Hence this study was performed to analyze the extent to which a preliminary diagnosis by FNAC and Trucut from breast lump correlates with final histopathological report.

AIMS & OBJECTIVES

1. To compare the diagnostic accuracy of fine needle aspiration cytology and tru-cut biopsy in differentiating benign and malignant lesions of palpable lump in breast cytological and histopathological correlation.

2. To analyze sensitivity, specificity, positive and negative predictive values and the efficacy of fine needle aspiration cytology and tru-cut biopsy.

3. To compare the cytological grade with histological grade in surgical specimens.

4. How an OP procedure of FNAC can be effective in arriving at diagnosis in carcinoma breast as treatment.

REVIEW OF LITERATURE

Embryology

A pair of epidermal thickenings called the mammary ridges will develop along either side of the body from the future axilla area to the future inguinal region by 4th week. Except for the central 1/3rd where the breast forms, these ridges usually vanish. This mammary ridge residue releases the primary bud which develops down into the underlying dermis in the 5th week. The primary bud begins branching by the 10th week and many secondary buds have grown by the 12th week. Throughout the duration of the gestation, these buds lengthen and branch. By birth approximately 15-25 lactiferous ducts open onto a small surface depression called mammary pit. Proliferation of underlying mesoderm converts the pit to an elevated nipple within few weeks of birth [68].

ANATOMY OF THE BREAST[10]

The breast or mammary gland, a modified sweat gland, is a vital accessory organ of female reproductive system.

Situation

The breast is in the pectoral region's superficial fascia. A small extension called the axillary tail of Spence, pierces the deep fascia and lies in the axilla.

Extent

Vertically, breast extends from the 2nd to the 6th rib and horizontally, it extends from the lateral border of the sternum to the midaxillary line.

Deep relations

1) The breast lies on the deep fascia covering the pectoralis major.
2) Still deeper - three muscles, namely the pectoralis major, the serratus anterior, and the external oblique muscle of the abdomen.
3) The breast is separated from deep fascia by loose areolar tissue.

The Skin

Skin covers the gland. There is a conical projection called the nipple at the level of the fourth intercostal space just below the middle of the breast. 15 to 20 lactiferous ducts pierce the nipple. This includes smooth muscle fibers, both circular and longitudinal, which can make the nipple rigid and flatten this. The skin that covers the nipple's base is pigmented, creating a circular area called the areola.

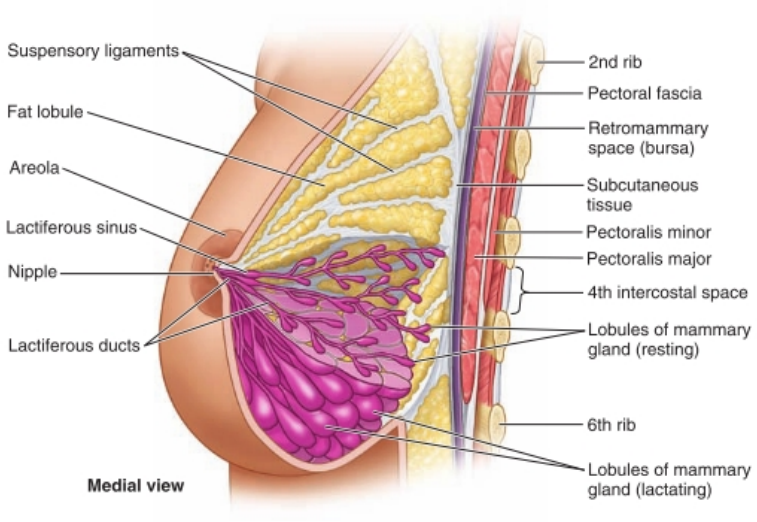


Fig 1: Sagittal section of female breast and anterior thoracic wall.

The Parenchyma

It is made up of glandular tissue; the gland consists of 15 to 20 lobes. Each lobe is a cluster of alveoli and it is drained by lactiferous duct. The lactiferous ducts converge towards the nipple and open on it. Near its termination each duct has a dilatation called a lactiferous sinus.

The Stroma

The fibrous stroma forms septa known as the suspensory ligaments

(of Cooper) and the main bulk of the gland forms the fatty stroma.

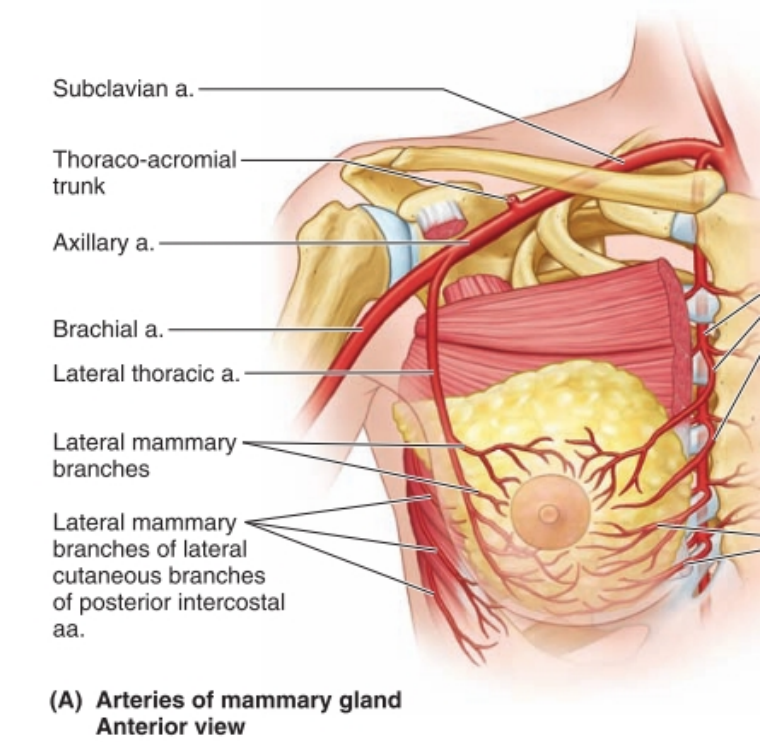
Blood supply

The mammary gland is extremely vascular. It is supplied by

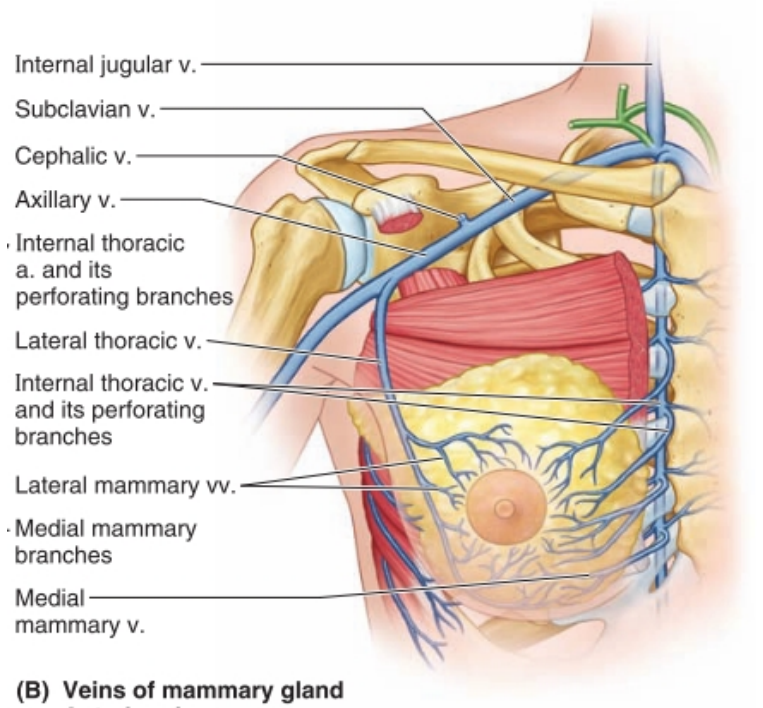
branches of the following arteries.

1. Internal thoracic artery, a branch of the subclavian artery.
2. The lateral thoracic, superior thoracic and acromio thoracic branches of the axillary artery.
3. Lateral branches of the posterior intercostal arteries.
4. The veins follow the arteries. The superficial veins drain into the internal thoracic vein and into the superficial veins of the lower part of the neck. The deep veins drain into the internal thoracic, axillary and posterior intercostal veins.

Fig 2: Blood supply of Breast



(A) Arteries of mammary gland
Anterior view



(B) Veins of mammary gland
Anterior view

Nerve supply

The breast is supplied by the anterior and lateral cutaneous branches of the 4th to 6th intercostals nerves. The nerves convey sensory fibers to the skin, and autonomic fibers to smooth muscle and to blood vessels.

LYMPHATIC DRAINAGE OF THE BREAST[10]

Lymphatic drainage of the breast is of atmost importance to the surgeon because, carcinoma of the breast spreads mostly along the lymphatics to the regional lymph nodes located in the axilla primarily.

Lymph Nodes

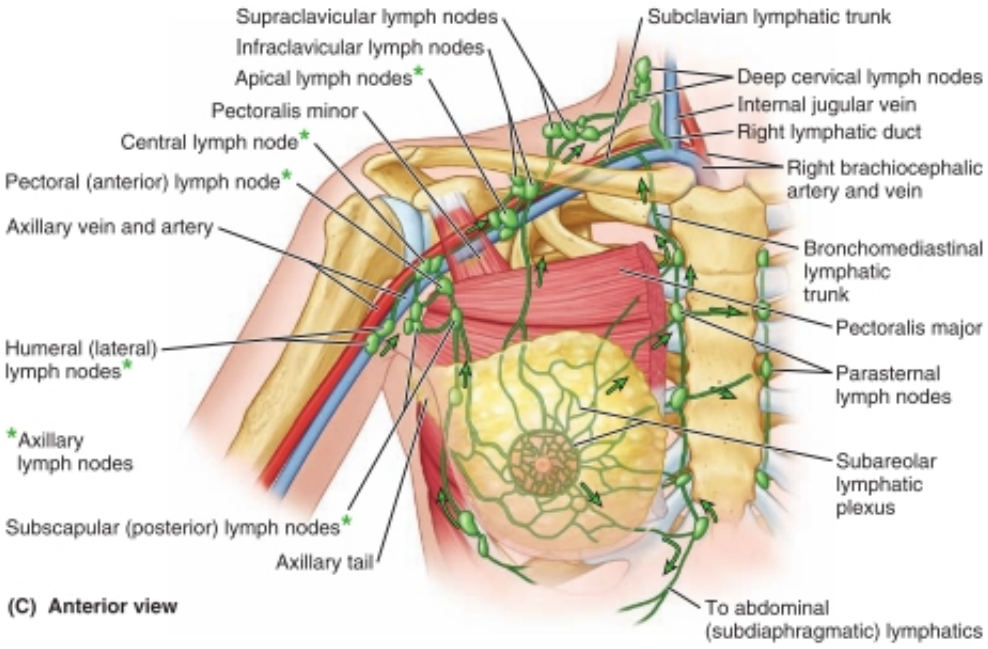
Lymph from the breast drains in to the following lymph nodes.

- The axillary lymph nodes, chiefly the anterior (or pectoral) group, the posterior, lateral, central and apical groups of nodes also receive lymph from the breast either directly or indirectly.
- The internal mammary (parasternal) nodes which lie along the internal thoracic vessels.
- Some lymph from the breast also reaches the supraclavicular nodes, the cephalic (deltopectoral) node, the posterior intercostals nodes (lying in the front of the heads of the ribs), subdiaphragmatic and subperitoneal lymph

plexuses. The lymphatics pass radially to the surrounding lymph nodes (axillary, internal mammary, supraclavicular and cephalic).

- The deep lymphatics drain the parenchyma of the breast. They also drain the nipple and areola.

Fig 3: Lymphatic Drainage of Breast



AXILLARY LYMPH NODES[8]

ANTERIOR group:

Lies along the lateral thoracic vein under anterior axillary fold mainly along the third rib. It lies in contact with axillary tail of Spence and hence carcinoma located

at this site is likely to ne misdiagnosed as lymphadenopathy. The anterior axillary nodes may be involved by direct continuity of tissue.

POSTERIOR group:

Lie along the subscapular vessels in relation to the posterior axillary fold.

LATERAL group:

Lies in relation to axillary vein along upper part of humerus.

CENTRAL group:

Located in the fat of the upper part of the axilla. The intercostobrachial nerve passes outwards amongst these nodes. Enlargement of these nodes, may cause pressure on the nerve, causing pain in the distribution of the nerve along the inner border of the arm.

APICAL group:

Also known as “infraclavicular lymph nodes” are important lymph nodes lying below by the 1st intercostal space, behind by the axillary vein, in front by the costocoracoid membrane. These nodes lie very deeply, but can be palpated by

pushing the fingers of one hand into the axillary apex from below and the fingers of the other hand behind the clavicle from above.

They are of great importance because they receive one vessel directly from the upper part of the breast and ultimately most of the lymph from the breast.

A single trunk leaves the apical group on each side of the subclavian trunk, and enters the junction of the jugular and subclavian veins, or may join the thoracic duct on the left.

LYMPHATIC DRAINAGE [8]

The breast is drained by two sets of lymphatics:

1. The lymphatics of the skin over the breast.
2. The lymphatics of the parenchyma of the breast.

LYMPHATIC OF THE OVERLYING SKIN:

These drain the integument over the breast, but not the skin of the areola and nipple. They pass in a radial direction and end in the surrounding nodes. Those from the outer side go to the axillary nodes. The skin of the upper part drains by vessels that go to the supraclavicular nodes (members of the lower deep cervical nodes). Certain of these vessels may end in the cephalic node, which lies in relation to the vein of the same name in the deltopectoral triangle. The vessels

from the skin over the inner part of the breast drain to the internal mammary nodes, which lie in relation to the veins of that name. These nodes lie in the upper four or five intercostal spaces or behind the related coastal cartilages. The lymphatics of the skin over the breast communicate across the middle line, and a unilateral disease may become bilateral by this route. Mammary cancer may spread along these superficial lymphatic vessels to produce nodules in the skin.

LYMPHATICS OF THE PARENCHYMA OF THE BREAST:

The subareolar lymph plexus of Sappey is a collection of large lymph vessels situated under the areola. Though the subareolar plexus communicates with the lymphatics of the breast tissue, it is not a collecting zone for the breast lymph The axillary nodes receive about 75 per cent of lymph draining the breast tissue. Lymphatics arising in the lobules pass directly outwards in the substance of the breast, receive tributaries on the way, and pass though the axillary tail to the axilla. Most to the anterior group of nodes; a few pass to the posterior group, and from there they run to central and apical group. Lymphatics form the deep surface of the breast pass through the great pectoral muscle on their way to the axillary or internal mammary nodes. The lymphatic plexus of the deep fascia consists of fine vessels, which do not act as a normal pathway for lymph from the breast to the regional nodes. The internal mammary nodes receive lymph from both the medial and lateral portions of the breast. Lymph enters the thorax along the anterior perforating branches of the internal mammary artery and along the lateral

perforating branches of the intercostal vessels. Most of this lymph goes to the internal mammary chain, but a small amount may pass to the posterior intercostal nodes lying near the head of the ribs. At the level of the first interspace, fine lymphatics connect the right and left internal mammary chains behind the manubrium sternum, and nodes may be found there. Even in apparently early breast cancer, tumours of the outer half of the breast may metastasize to the internal mammary nodes without involvement of the axillary nodes. An efficient and accurate evaluation can maximize cancer detection and minimize unnecessary testing and procedures. For effective management, multidisciplinary approach is essential.[13]

HISTOLOGY

The human breast consists of 6- 10 major ductal system. At the orifice of the nipple, keratinizing squamous epithelium changes into twolayered cuboidal epithelium lining ducts. The larger ducts successively branches and ends as terminal lobular duct unit. In some women the ducts extend into the axilla and chest wall. There are 2 types of cells which line the lobules and duct. The myoepithelial contractile cells line the basement membrane, and help in ejection of milk at the time of lactation and support lobules. Overlying the myoepithelial cells are the luminal cells which produce milk. There are two types of breast stroma. The interlobar stroma consists of dense fibrous connective tissue admixed with adipose tissue. The intralobular stroma envelopes the acini of lobules and consists of breast specific hormonally responsive fibroblasts like cells admixed with lymphocytes.[69]

Changes in the breasts are most dynamic and profound during reproductive years. Just as the endometriun grows and ebbs with each menstrual cycle, so does the breast. During first half of menstrual cycle, lobules are relatively quiescent. After ovulation ,under the influence of estrogen and progesterone, cell proliferation increases, as does the acini per lobule. The intralobular stroma becomes markedly edematous. Upon menstruation.the fall in progesterone and estrogen levels induces the regression of lobules and the disappearance of stromal edema. After the third decade, long before menopause, lobules and there specialized stroma start

to involute. Lobular atrophy may be complete in elderly females. The radiodense fibrous tissue of young female is progressively replaced by radiolucent adipose tissue.[70]

SYMPTOMATOLOGY

Most common symptoms reported by women are pain, nipple discharge and palpable mass.[71]

- Pain (mastalgia) is the most common breast symptom. It can be caused by a ruptured cyst, area of prior injury / infection. But most often, no specific lesion is identified.[72]
- Nipple discharge is a less common presenting symptom but of concern when it is spontaneous and unilateral. A discharge produced by manipulating the breast is normal and unlikely to be associated with a pathologic lesion. Serous discharge is most commonly associated with benign lesions but rarely can be due to malignancy. Palpable mass is a fairly common breast symptom. A breast lesion usually does not become palpable until it is about 2 cms diameter. The most commonly encountered lesions are fibroadenoma, cysts and invasive breast cancer. The likelihood that a palpable mass is malignant increases with age. Cancer of the breast is a common human neoplasm accounting for approximately 1/4th of all cancers in females. Approximately 50% of cancers arise in upper outer quadrant, 10% in each of remaining quadrant and about

20% in central / subareolar region. Early detection and advances in treatment have begun to reduce mortality rates[72].

Detection and diagnosis of breast lump

Education of the public about the fundamental facts of cancer and self-examination of the breast represents an important factor in the early detection of breast disease. The clinical signs of primary breast neoplasm are few. In the over whelming majority of cases, there is a painless breast mass and less frequently nipple discharge of erosion, skin retraction, or an axillary mass.[2] Physical examination, mammography, ultrasonography, core needle biopsy, open excision biopsy, thermography, fine needle aspiration cytology are important diagnostic modalities which have greater or lesser degrees of contribution in the detection of palpable lump in breast. To increase the sensitivity and specificity of the approaches, studies have been made on the various combinations of these diagnostic modalities.[38]

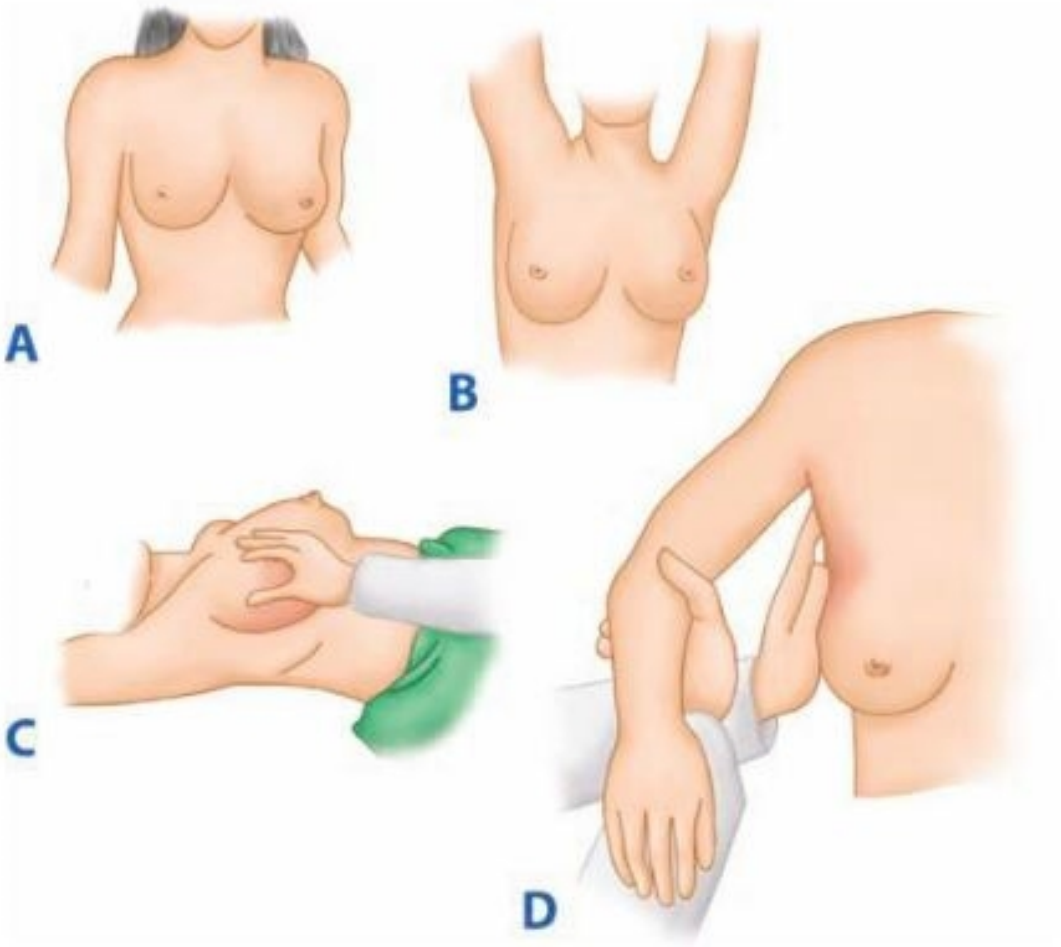


Fig: 4 EXAMINATION OF THE BREAST

A) Inspection of breast with arms at sides,

B) Inspection of breast with arms raised,

C) Palpation of the breast with patient supine,

D) Palpation of the axilla

A diagram of the chest and contiguous lymph node sites is useful for recording location, size, consistency, shape, mobility, fixation, and other characteristics of any palpable breast mass or lymphadenopathy.

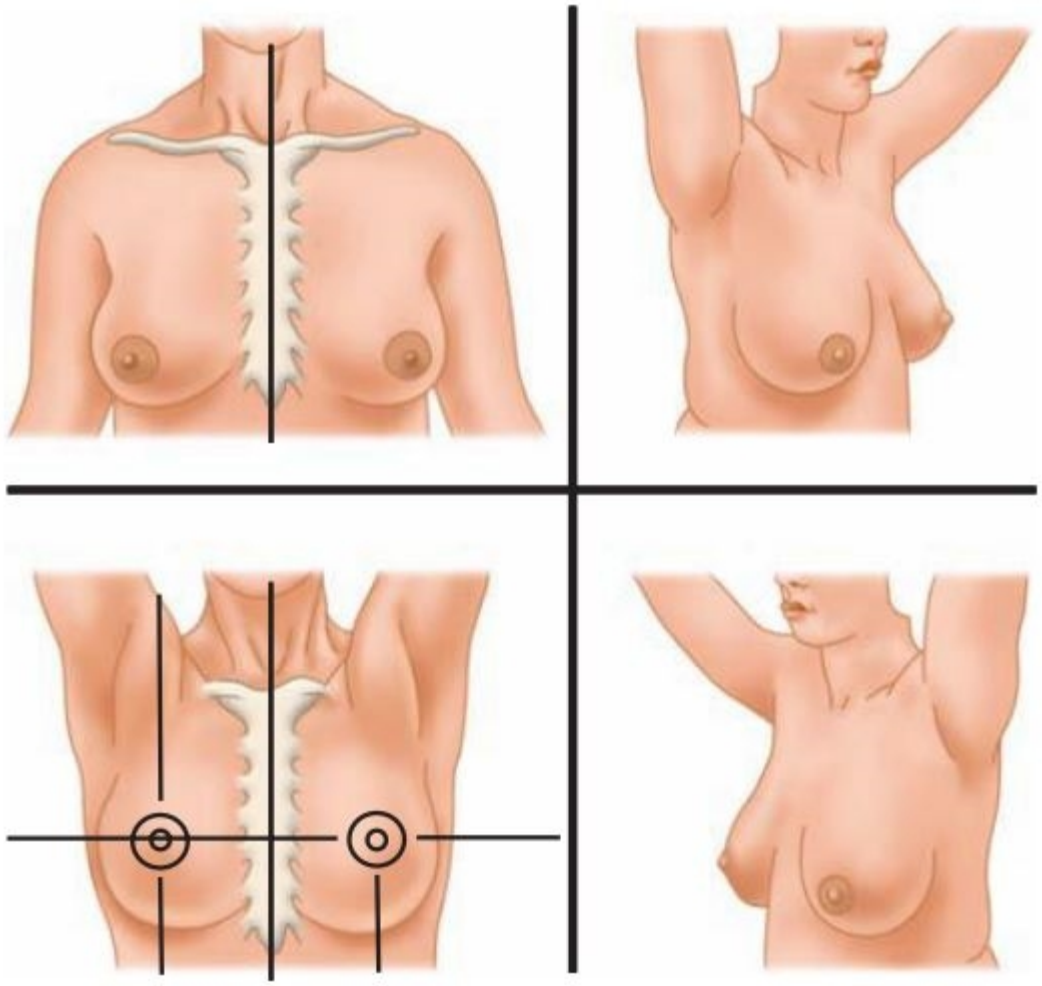


Fig 5: A BREAST EXAMINATION OF RECORD.

Many diagnostic tools are used in cases of suspected breast cancer as the famous triple assessment described in 1975[14], which has dramatically reduced the use of open biopsy.[14,15]

It was used principally for evaluating palpable breast lumps. Triple approach has achieved the highest level of diagnostic accuracy in which the results of clinical examination, imaging and fine needle aspiration cytology and/or tru-cut biopsy are combined.[16,17] Hence a diagnostic accuracy exceeding 99% is achieved with the result of the three modalities.[18,76] Interestingly diagnostic accuracy of comparable levels have been achieved with impalpable lesions in which, clinical examination is not much contributory.[19]

The role of cytopathology in the diagnosis of breast disease is concerned with the examination of cells seen in the nipple discharges and those aspirated from solid and cystic lesions using a fine needle. The former is a well-established diagnostic test for carcinoma of the larger ducts, with or without Paget's disease of the nipple, presenting with a blood stained discharge, but aspiration cytology is a newer technique, which is now finding its place in the breast surgeon's diagnostic armamentarium.[9]

In recent years the place of the rapid frozen section in the diagnosis of breast cancer has become diminished in importance and has been replaced by increasing emphasis on preoperative diagnosis using a combination of clinical examination, mammography and either biopsy, using a wide bore cutting needle or aspiration cytology using a narrow hypodermic needle with rather than attempt to combine tissue diagnosis and mastectomy at one operation.[13] With realization that perhaps less radical surgery will give equal or improved survival as well as less

postoperative morbidity, development of more reliable tests for metastatic disease there by making extensive surgery unnecessary, and finally the increasing tendency to involve the patient herself in the decision about the best method of treatment thus making accurate preoperative diagnosis very important.[6]

Clinicians should distinguish between the two techniques, and it is recommended that the term biopsy be reserved for that which provides a histopathological diagnosis and "aspiration cytology" for that which provides cytopathological diagnosis. [32]

CYTOPATHOLOGICAL DIAGNOSIS

Fine needle aspiration cytology (FNAC)

The History of FNAC

Kun in 1847 had described a "new technique for the diagnosis of tumors", which was the first report of using a needle method for harvesting tissue for microscopic examination. Random reports of this procedure were subsequently published.[6] FNAC was hardly recognized until the mid 1950s when awareness

of this technique arose by Dr. Martin and Dr. Stewart (Head and Neck Surgeons, New York's Memorial Hospital) and European pioneer workers from Stockholm Karolinska Radiumhemmet Hospital in Sweden. In contrast to Martin and Stewart

who used thicker caliber (18 gauge) needles, the European workers popularized the technique of employing thin needles (22 gauge and higher) with an external diameter of 0.6mm or less for aspiration at different sites ranging through lymph nodes, prostate and breast.

Soderstrom and Franzen in Sweden and Lopes Cardozo in Holland became major proponents of FNAC studying thousands of cases each year[5] .

These developments have contributed to a great extent resulting in the procedure today know as "fine needle aspiration cytology" (FNAC). The perfect volume, histopathological correlation, follow-up details with informative publications allowed for an ethos within the medical field for free reign of the procedure. Hence such a practice led to a new specialty called 'clinical cytologist' who examines the patient, and aspirates from the lesion, and subsequently prepares, reads the slide. The cytologist then arranges for onward referral. Therefore they served as a model for FNAC services for the whole world so that FNAC can be an active part of all sophisticated pathology departments.[29,30]

IN THE PRESENT ERA

Fine needle aspiration cytology (FNAC) of the palpable breast masses has recently become a well accepted diagnostic technique, and has mostly replaced excision breast biopsy due to the following advantages. It provides a

sensitive, expedient and economical method of obtaining cytological material for examination. It can be done during an office visit without the need of anesthesia thus eliminating the cost of outpatient surgery. It also allows discussion with the patient of various treatment plans for the malignant mass on the same visit. It is most commonly used in combination with physical examination and mammography in the so-called “triple test” diagnostic triad, which is a highly accurate method of evaluating the breast masses. The recent renewed interest in this technique is also due to the fact that this procedure is safe, nontraumatic and repeatable..

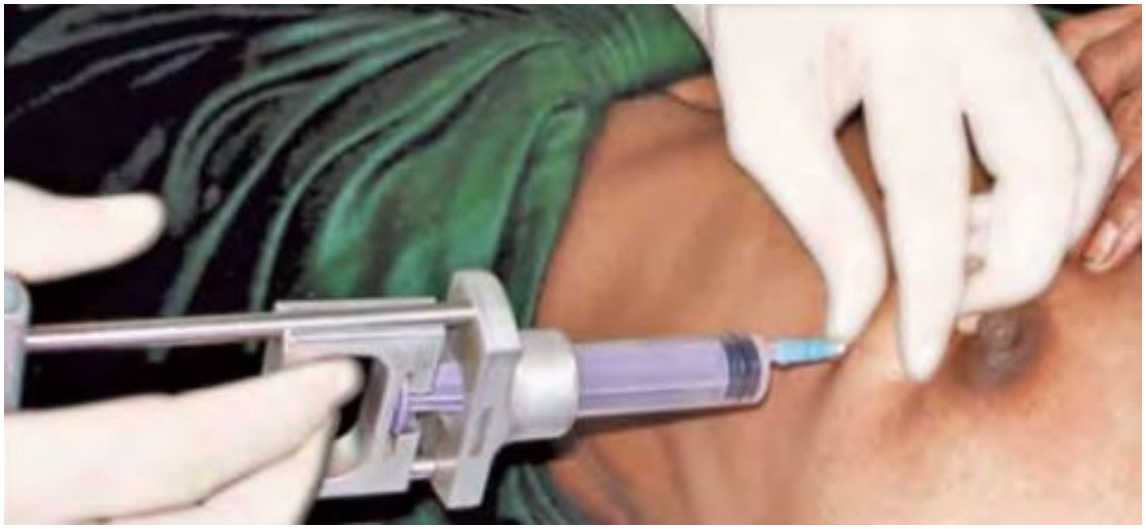


Fig 6: FNAC Procedure

FNAC is carried out by cytotechnician and reported by the cytologist and no skill or expertise is needed and has no big learning curve to do the procedure. It can be repeated when necessary with ease.

Table 1: National Health Service Breast Screening Programme Cytological Grading:

GRADE	RESULT
0	No epithelial cells present
1	Scanty benign cells
2	Benign cells
3	Atypical cells present
4	Highly Suspicious of malignancy
5	Definitely Malignant

Table 2: Robinson Grading System

CRITERIA	SCORE		
	1	2	3
A) Cell dissociation	Mostly in clusters	Mixture of single cells & cells in clusters	Mostly single cells
B) Cell size	1 – 2 x RBC size	3 – 4 x RBC size	≥ 5 x RBC size
C) Cell uniformity	Monomorphic	Mildely pleomorphic	Pleomorphic
D) Nucleoli	Indistinct	Noticeable	Prominent or pleomorphic
E) Nuclear margin	Smooth	Folds	Buds/Clefts
F) Chromatin	Vesicular	Granular	Clumped & cleared

Grade I: Score: 06–11

Grade II: Score: 12–14

Grade III: Score: 15 – 18

Cytology in different conditions[36]

Benign mammary dysplasia

When this lesion is aspirated one expects to see a few tight groups of duct cells, some adipose tissue and few stripped nuclei. Apocrine cells and foam cells are often seen, particularly when cysts are present.

Fibroadenoma

This lesion produces very cellular specimen. Duct cells are seen in large groups and sheets in honey coomb appearance surrounded by many stripped nuclei. Some nuclear pleomorphism of the duct cells usually present. The high cellularity and mild to moderate pleomorphism of fibroadenoma may lead to false diagnosis of malignancy. This is the tumour most likely lead to false positive diagnosis.

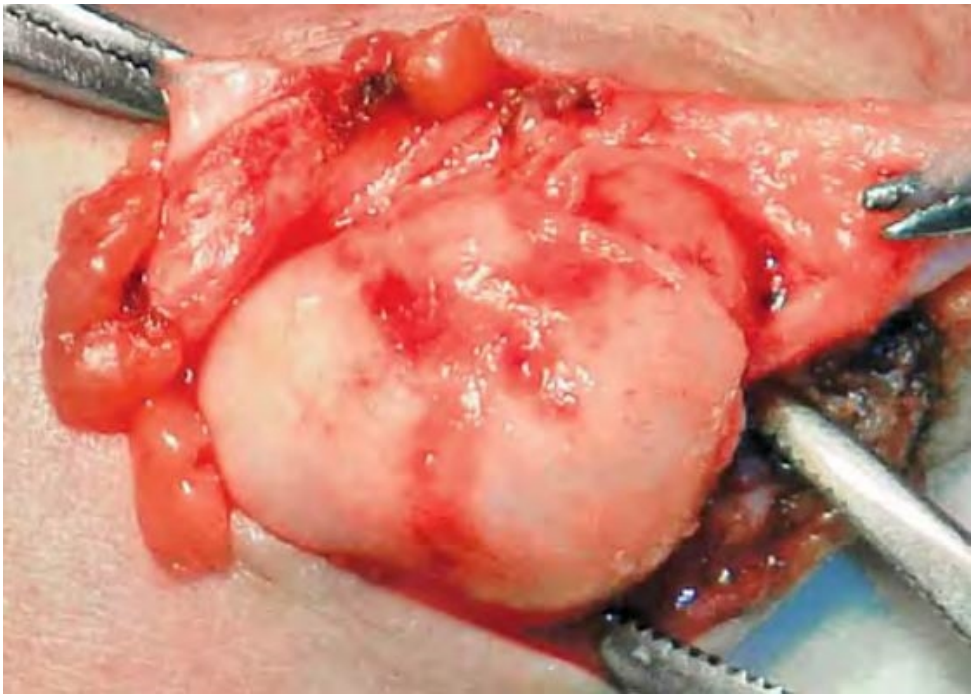


Fig 7: Fibroadenoma – well capsulated neoplasm

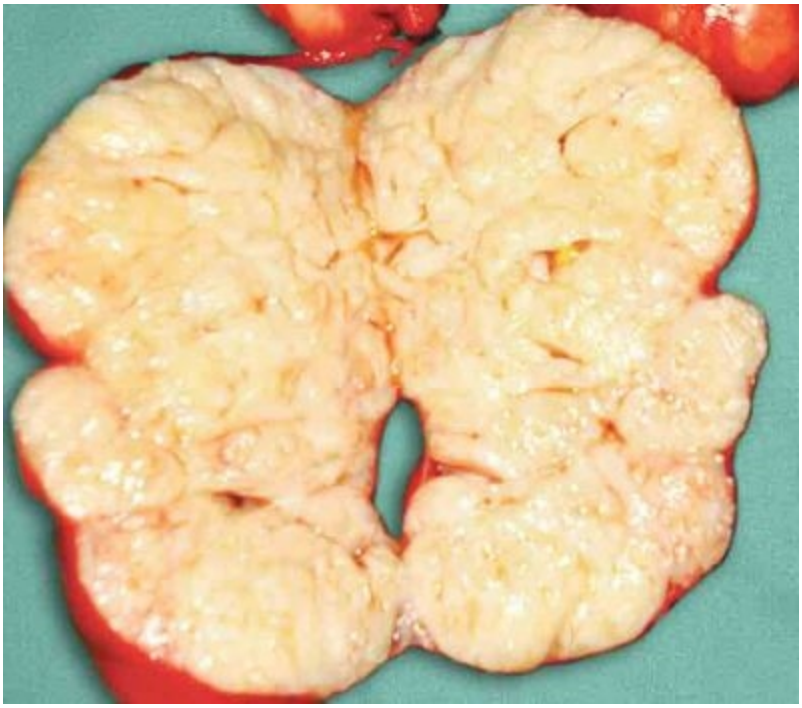


Fig 8: Cut section of fibroadeoma specimen

Phyllodes tumour

Variable cellularity, biphasic pattern similar to that of fibroadenoma. Cellular stomal component with spindle cells of various sizes and shapes. Variable cytological atypia and mitotic activity of stomal elements may be present.

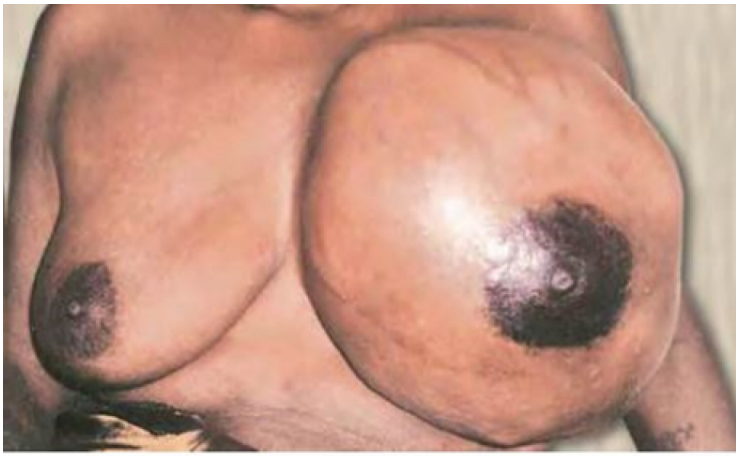


Fig 9: Phyllodes Tumor – Tumour occupies the entire breast

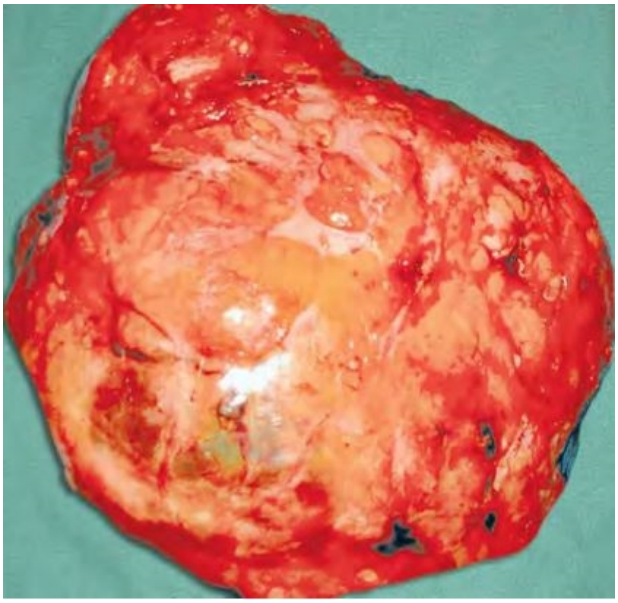


Fig 10: Phyllodes Tumor –Operated Specimen

Pregnancy and lactation

Under hormonal stimulation the duct cells enlarge, round up, loose their adhesion and show prominent nucleoli. It helps in distinguishing these specimens from malignancy to note that the cells usually have little or no cytoplasm and that there is a protinaceous blue staining back ground in that numerous vacuoles appear, probably due to lipid droplets.

Fat necrosis

Aspirates show a —messy mixture of degenerate fat cells, polymorphs, histiocytes and often a few giant cells. These are embedded in a blue staining background containing frequent holes, which are presumably dissolved lipid.

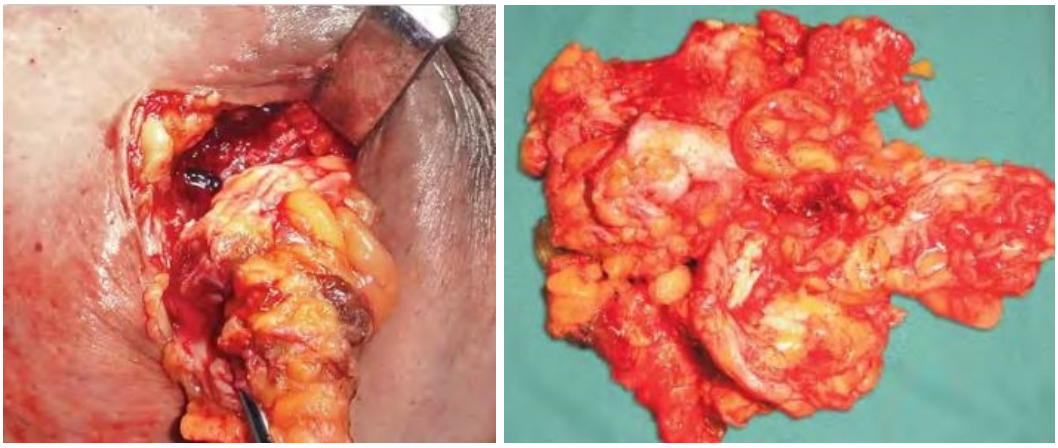


Fig 11: Traumatic fat necrosis

Inflammatory conditions

Acute inflammation (like mastitis and breast abscess) produces sheets of degenerate pus cells and other leucocytes usually with histiocytes scattered throughout. Duct cells, when present shows inflamatory changes like nuclear enlargement and cells degeneration. Granulomatous mastitis is characterized by a cellular aspirate demonstrating conspicuous numbers of lymphocytes, plasma cells and granulomas with epithelioid and multinucleated giant cells. Isolated clusters of fibroblast and reactive ductal epithelial cells are also present. Occasionally necrosis may be seen. The cellular material from such aspirates should be carefully examined for the presence of acid-fast bacilli, fungi and parasites. Sarcoidosis shows no evidence of necrosis and cat scratch disease typically demonstrates micro abscess formation. Occasionally distinction between atypical mononuclear epithelioid histiocytes in granulomatous mastitis and neoplastic mammary epithelial cells may be difficult.

Papilloma versus papillary carcinoma

Histology and morphological distinction between the carcinoma and benign papillary lesions of the breast is difficult. It is recommended

that definitive diagnosis be deferred to the histology unless there are unmistakable features of malignancy.

Carcinoma of the breast

A false diagnosis of breast carcinoma is unacceptable and it is to be avoided at all costs. It is much better to issue a false negative report and proceed to frozen section.

There are structured criteria for the diagnosis of malignancy by cytology, which are stratified into: 1) Structural alterations in the cells.

2) Changes in inter relationship of cells in cell clusters.

3) Indirect criteria.

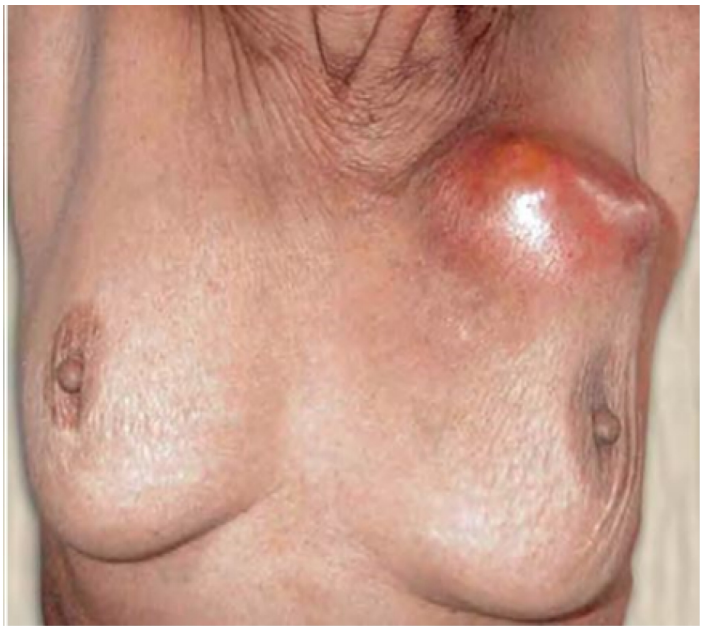


Fig 12: Carcinoma - Breast Most common site upper outer quadrant

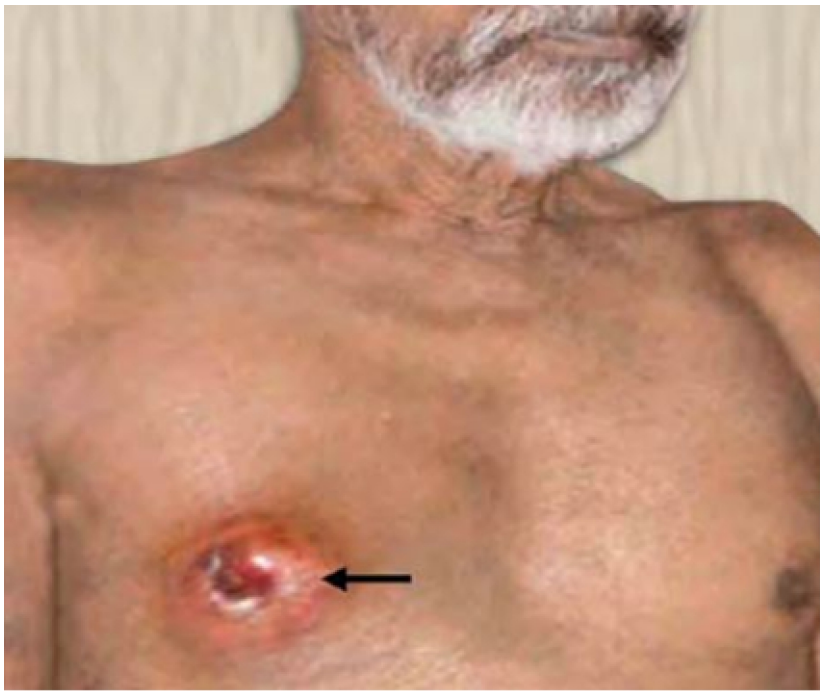


Fig 13: A case of male breast Carcinoma

Structural modifications:

Alterations of nuclear cytoplasmic ratio with disproportionate enlargement of nuclei. Hyperchromasia due to increased chromosomal content, aberrant chromatin pattern. Increased number of nucleoli beyond the normal. Multinucleation with nuclear atypia, abnormal mitotic figures. Marked thickening of nuclear membrane.

Cytoplasmic changes enhanced by staining, such as pronounced basophilia/acidophilia. Presence of cytoplasmic inclusions like

pigment granules, leukocytes and cellular debris. Atypical vacuolation especially in adenocarcinoma.

Well-differentiated carcinoma of the breast

Diagnosis depends mainly upon the nuclear chromatin, which is finer and smoother than in benign duct cells, together with loss of adhesion of the cells. Other helpful factors are the greater cellularity of the specimens and the lack of stripped nuclei. These tumour cells are difficult to identify without experience. Moderately and poorly differentiated carcinoma of the breast

These cases rarely present diagnostic difficulty. They show varying degrees of nuclear enlargement, loss of adhesions, pleomorphism abnormal nuclear chromatin and often- prominent nucleoli. Needle aspiration and/or scrapings from the Paget's disease of the nipple show large single malignant cells with clear cytoplasm (Paget cells). Usually there is a dirty back ground with inflammatory cells. Other malignant tumours of the breast

Colloid carcinoma

It is suggested by the presence of sheets or columns and clusters of large tumour cells having compressed, crescent shaped nuclei with prominent nucleoli molded by one or two large cytoplasmic vacuoles (signet ring cells).

Epidermoid carcinoma (squamous)

It is rare tumour that may originate from the metaplastic epithelium of the duct lining or from the skin covering the nipple. The cytology will show orange keratinised malignant cells with abnormal nuclei similar to ones described for squamous carcinoma of other sites.

Medullary carcinoma

In medullary carcinoma (brain like) aspirations may produce an abundance of large, ovoid or polygonal cells with adequate, vesicular, slightly basophilic cytoplasm and round or oval large nuclei with prominent, single nucleoli. Large number of lymphocytes may also be present.

Breast sarcoma/ Breast angiosarcoma (lymphangiosarcoma and hemangiosarcoma)

It is very rare; usually develop following radiotherapy to the breast. It is very difficult to differentiate by fine needle aspiration cytology. The lesion is composed of numerous slit like, irregular dilated vascular channels dissecting between the collagen bundles lined by atypical endothelial cells.

PITFALLS IN FNAC

There are various drawbacks in FNAC which may take place in a variety of cases. Some of the drawbacks are due to sampling technique, while

others are due to the unusual microarchitecture features or due to the stromal or cellular elements related to the lesion. Diagnostic errors may result in over-treatment or delay in the diagnosis and management.[40] In 1933, Stewart stated "until the pathologist has familiarized himself with the various pitfalls, errors are certain to occur" and "it must not be inferred that the diagnosis is always simple and that no errors have been made".[41] Hence interpretation of FNAC should always be accompanied by clinical and radiological opinion as the triple approach.

National Health Service Breast Screening Programme (NHSBSP) Cytology Guidelines also state that "under no circumstances should a cytological opinion of malignancy in the absence of mammographic and / or clinical evidence of malignancy be taken as authority for therapeutic surgery".[34] Certain extrinsic factors may lead to error in diagnosis and hence influence the report of FNAC. These factors include: misleading history or clinical evidence, samples that are not representative, samples contaminated by non-target tissue, artifacts due to poor processing of samples and dependence on and procedure failure of ancillary tests.[39]

Numerous neoplastic and non-neoplastic conditions at various sites can cause difference in the general cytodiagnostic criteria which in turn can contribute to false negative and false positive reports adding to the causes of diagnostic pitfall. The discrepancy could be due to microarchitechture pattern, stromal or cellular component of target tissues.

Hence pitfalls form unavoidable part of fine needle aspiration cytology. However its incidence can be reduced by taking necessary efforts in the diagnosis and by appropriately correlating cytology report with clinical evidence and radiological finding. Twice checking by 2 different pathologists and numerous sampling when indicated with experience acquired by repeated practice of the procedure can help to minimize the occurrence of pitfalls by FNAC diagnosis.[12]

As fine-needle aspiration cytology has become an important component in the investigation of palpable breast masses; false-negative results have become a major issue, requiring reconsideration of the specimen adequacy. The false-negative cases are commonly due to poor sampling technique, poor tumor localization, and the presence of a well- differentiated histology of the tumor. Small tumor size and non-palpable breast lesions are also commonly associated with false-negative and aspirate inadequacy.[42]

False positive

Fortunately a false positive diagnosis is rare and when clinically not supportive, it is advisable to go for tru-cut biopsy before the definitive treatment.[12]

Inadequate sampling

Inadequate sampling is another pitfall in the diagnosis of breast

tumor by FNAC. In those with report as inadequate sampling, repeat aspiration has shown to increase the diagnostic accuracy of FNAC in diagnosing a breast lump.[12]

HISTOPATHOLOGICAL DIAGNOSIS

Biopsy of the breast Lesion

The term "biopsy" (bios-life + opsis-vision) implies an examination of the tissue removed surgically. It includes not only the taking of the tissue but also its microscopic examination. The word biopsy appears to have been coined by the French dermatologist Ernest Henri Besnier in 1879. Even earlier, however Virchow has emphasized the fundamentals of biopsy and it's value in the diagnosis of malignant tumors. Since then the histological study of tissue and other materials removed for the diagnostic purposes has become a cornerstone of many phases of medical practice.[12]

The truth is that the only kind of evidence upon which a surgeon can wholly rely today is pathologic. The surgeon must have proof of the nature of the disease because his therapy is so different for different lesions. Benign lesions, in general require only harmless limited local excision, where as carcinoma requires a formidable and mutilating radical operation. Biopsy and microscopic study of the lesion, is necessary to prove the diagnosis for all lesions of the breast.

The only question is what form of the biopsy should take. A number of different methods of obtaining tissue biopsy are in use.[20]

Clinicians should distinguish between the two techniques, and it is recommended that the term biopsy be reserved for that which provides a histopathological diagnosis and "aspiration cytology" for that which provides cytopathological diagnosis.[32]

Methods of biopsy

- Tru-cut biopsy
- Intraductal biopsy
- Smears of nipple secretion
- Incision biopsy
- Excision biopsy
- Biopsy of lesions of the nipple.

Tru-cut biopsy

Surgeons have devised a variety of trocars and trephines for bringing out small cores of tissue from breast lesions. With them it is possible to obtain, tissue specimen that can be fixed embedded, and cut in the usual way. In 1938, Silverman introduced the needle that bears his name and it has come to be widely used for biopsy. Ackermann, at Delafied hospital has advised a good trocar

with which a small core of tissue can be obtained. Another needle that is commonly used is the trucut needle. All these techniques have the disadvantage that they provide only a comparatively small specimen of the lesion, in which the architecture is not well shown and question such as invasion remain doubtful. The microscopic evidence is just not good enough. Trocar and trephine biopsy face the objection that they miss the lesion if very small.[12]

Intraductal biopsy

Leborgne in Montevideo has devised a set of small instruments, dilators and loops curettes, which he inserts through the nipple ducts to reach the lesions and to secure small fragments of them. These fragments are sectioned and stained in the usual way.[21]

Smears of nipple secretion

The microscopic examination of nipple discharge smears shows a variety of cells including those from the duct epithelium, inflammatory cells and red blood cells. The best technique for collecting the fluid is to gently squeeze the nipple, noting the position of the nipple of the discharging duct and to place the one end of the microscopic slide on the nipple and make a thin film by smearing the discharge along the slide. The number of cells obtained is usually

small and they dry quickly to enable good quality staining by the Romanowsky technique.

When several clusters of large duct cells are seen in a nipple discharge smear the presence of a papilloma or papillary carcinoma should be considered. There is no doubt that the smear technique is not a reliable method of diagnosis. Smears often fail to reveal carcinoma when it is present in the breast and they may give false positive diagnosis of carcinoma when it is not present. Secondly every kind of manipulation of a breast suspected of containing disease should be avoided for the fear of producing metastasis from possible carcinoma.[22]

Incision biopsy

Some surgeons prefer incision biopsy and frozen section as the method of choice in proving a nature of tumor of the breast. Frozen section provides adequate microscopic evidence except in one type of neoplasm of the breast that requires good paraffin section. That is papillary type of neoplasm. It is difficult to distinguish papillary carcinoma from papilloma microscopically by frozen section. Preliminary biopsy as a separate operative procedure and careful study of paraffin sections should precede any definitive operative procedure.[12]

Excision biopsy

Excision biopsy is carried out in the operation theater under general anesthesia, in which the entire lump is removed in-toto, only when there

is high suspicion to support a benign lesion or rules out malignant lesion. It serves both as a diagnostic tool and therapeutic intervention, in which the lump is removed with adequate margins of normal tissue, wherein a further surgical procedure is not needed when diagnosed as benign lesion. Incision biopsy, in which a portion of the lesion is excised, is often reserved for diagnosis of lesion suspicious of malignancy, and in conditions where tru-cut biopsy is inconclusive. Hence, excision biopsy is indicated in patients with clinically suspicious lesions and lesions in which imaging or tissue studies are equivocal.[23-26] The need for excision biopsy as a diagnostic tool has decreased with the increased use of tru-cut biopsy.[27]

Biopsy from lesions of the nipple

Lesions of the nipple epithelium, thickening, reddening, erosion which are not accompanied by a palpable tumor in the breast may quite properly be biopsied in the outpatient department.[12] Histological grading is an important determinant of prognosis that allows risk stratification. Several histologic grading systems are in use, in which some consider duct and gland differentiation and others the nuclear characteristics. Some grading systems include both. Scarff Bloom Richardson grading combines details of cell morphology with a measurement of differentiation and assessment of proliferation.

Table 3: Scarff Bloom Richardson Grading System

Feature	Score
Tubule formation	
Majority of tumor - >75%	1
Moderate degree - 10-75%	2
Little or none - <10%	3
Nuclear pleomorphism	
Small,uniform cells	1
Moderate increase in size/variation	2
Marked variation	3
Mitotic counts-per 10 HPF(40xfields)	
0-5	1
0-6	2
>11	3

Grade 1 (Well differentiated): Score 3-5

Grade 2 (Moderately differentiated): Score 3-5

Grade 3 (Poorly differentiated): Score 3-5

Table 4: Comparison of merits of surgical biopsy and aspiration cytology [43]

1.	Diagnosis	Histopathological	Cytopathological
2.	Diagnostic Facility	Narrow	Broad
3.	Anesthesia	Yes	No
4.	Duration	>5min	<5min
5.	Report Available	1-2 days	1-2 Hours
6.	False Positive	None	Very Rare
7.	False Negative	Few	Some
8.	Cost	High	Low
9.	Specimen Obtained	In operating Theatre	As Out Patient
10.	Trauma and Skin Incision	Yes	Little if any

Complication of breast aspirations

No serious complication or problems are associated with fine needle aspiration cytology. A small hematoma may develop as a rare occurrence at the puncture site. This is more likely to happen with breast cancers than with benign diseases. Another minor complication that can occur with fine needle aspiration cytology is the superficial skin infection at the site of pierce. Although theoretically possible no cases of local recurrence or seeding of tumor by piercing with needle has been documented.[12,38]

MATERIALS AND METHODS

Type of study

It was a prospective study.

Source of Data.

Female patients with palpable lump in breast attending Tirunelveli Medical College Hospital, Tirunelveli formed the subject of this study.

Period of study

Between September 2017 to May 2019.

Sample size

295 patients.

Inclusion criteria

1. Patients with Palpable breast lump of variable duration

2.. Age between 14 and 80 years.

Exclusion criteria

1. Patients with recurrent malignancy
2. Patients who were on chemotherapy

2. Patient with acute and tender breast lump like breast abscess

3. Patient with frank malignant mass with skin ulceration

Ethical clearance

The study protocol was reviewed by The Institutional Ethical Committee of the institution and permitted by it. Data collection A patient presenting to the outpatient department with palpable breast lump is subjected to detailed clinical history with physical examination and the information is entered in proforma. After obtained an informed and valid consent from the patient, fine needle aspiration cytology or tru-cut biopsy from the breast lump is performed.

The procedure for obtaining the specimen is explained to the patient. A 10ml syringe bearing a 23-gauge needle (external diameter of 0.6mm) is used. The lump is firmly but gently fixed by the locating hand with slight stretching of the overlying skin. Using an alcohol impregnated swab, the site to be aspirated is cleaned. Then with syringe firmly fixed and plunger closed to remove air from barrel, the needle is made ready for inserting. Patient is informed prior to puncturing the skin. The needle is introduced into skin with no air in the syringe barrel. With the needle at the anterior edge of the lump, negative pressure is applied using the thumb or with help of a syringe holder. Multiple passes are made through the lesion, at varying angle of entry into the lump, slowly rotating the syringe without withdrawing the needle from skin. This is continued till a small droplet of fluid is visualized at the hub of the needle. The negative pressure is released and then the needle is withdrawn from the skin. The needle is separated

from the syringe, and reattached to the syringe filled with air. The specimen is then expressed on a glass slide.

In case of excess bleed from the aspirated site, it is best to interrupt the procedure and apply pressure to avoid hematoma formation. The procedure may be repeated in the same sitting from another angle or after 1 week. Breast lesions are often deeper than they appear. If there is doubt about whether the lesion has been sampled, then re-aspiration using a longer needle may be necessary. If there is no resistance to the needle from a lump that appears clinically not to be a lipoma, then it is likely the lesion has been missed by the needle. Re-aspiration is advised, especially if the spread slide shows oily droplets throughout. Similarly, heavily blood stained aspirates may not be representative of the lesion.

The smear was fixed with 95% alcohol and later stained with hematoxylin and eosin stain. The slides were then observed under microscope and graded accordingly.[6] The patients were subsequently subjected to Tru-cut biopsy using a tru-cut biopsy "gun" of 14-gauge needle. After administering Local Anesthesia, small incision was made over the breast lump and cannula introduced. The inner trocar is thrust forward approximately 2 cm and at almost the same time the outer cutting cannula is thrust over the inner trocar filling the inside notch with the breast tissue specimen. The specimen is then placed in a container of 10% neutral formalin. The cytological and tru-cut histological diagnosis was reported to the patient and where a diagnosis of malignancy was made, modified radical

mastectomy (MRM) was performed and specimen sent for confirming by histo-pathological report. In addition, where the cytology slide reported as “inadequate”, repeat aspiration was performed before excision biopsy.

CYTODIAGNOSTIC CRITERIA

The reports of Fine Needle Aspiration Cytology from breast lump Reports of the fine needle aspiration cytology from palpable lump

in breast falls in 4 categories. [10]

1. Unsatisfactory (inadequate) cytology

   Insufficient numbers or absence of epithelial cells. The standard

criteria for a “diagnostic aspirate” are not yet well defined. Providing that the cells are well preserve and they are not obscured by blood and/or inflammatory cells. A breast aspirate is considered to be satisfactory when there are more than 3 to 6 epithelial cell groups per slide and cellularity is adequate when there are more than 4-6 well- visualized cell groups. The unsatisfactory or inadequate sampling is due to,

a. Scant cellularity.

b. Air drying or distortion artifact

c. Obscuring blood/inflammation.

d. No malignant cells seen

This may be expanded to include the type of cells present and therefore, suggest the type of lesion. For example, the presence of apocrine metaplasia together with foam cells suggests cystic mastopathy. Benign cells aspirated from the breast are duct cells, apocrine cells, foam cell, stripped nuclei, fat cells, lymphocytes and red cells.

2. Malignant cells present

This report must be used only when there is no doubt that the lesion is malignant; as such a report should result in the patient receiving definitive treatment for the breast cancer. It is possible not only to diagnose malignancy but also to report whether the tumour is well, moderately or poorly differentiated and whether or not there is lymphocytes response. It is not possible to determine the presence or absence of invasion cytologically.

3. Cells present that are suspicious but not diagnostic of malignancy.

Data entry and Analysis

Data entry and data analysis were done using MS Excel 2017. Appropriate statistical tests were applied.

OBSERVATION AND RESULTS

Table 5 : Distribution of Patients according to their Age

Age group (in completed years)	Total	
	Frequency	Percent
<20	28	9.5%
21-30	44	14.9%
31-40	57	19.3%
41-50	74	25.1%
51-60	51	17.3%
>61	41	13.9%
Total	295	100.0%

Table 5 shows that out of 295 women studied, age incidence ranged from 14 years to 80 years and the most common age group having breast lump was 41 – 50 years

Table 6: Age wise distribution of patients having Benign and Malignant Breast Lump

Age group (in completed years)	BENIGN / MALIGNANT		Total
	BENIGN	MALIGNANT	
<20	28	0	28
21-30	41	3	44
31-40	35	22	57
41-50	20	54	74
51-60	1	50	51
>61	0	41	41
Total	125	170	295

Table 6 shows that the age prevalence for benign breast lesions range from 14 – 50 years and for malignant lesions range from 40 – 70. The commonest age for benign lesion was 21-30 year and for malignant lesion was 41 to 60 years.

Fig . 14 : Distribution of patients according to age

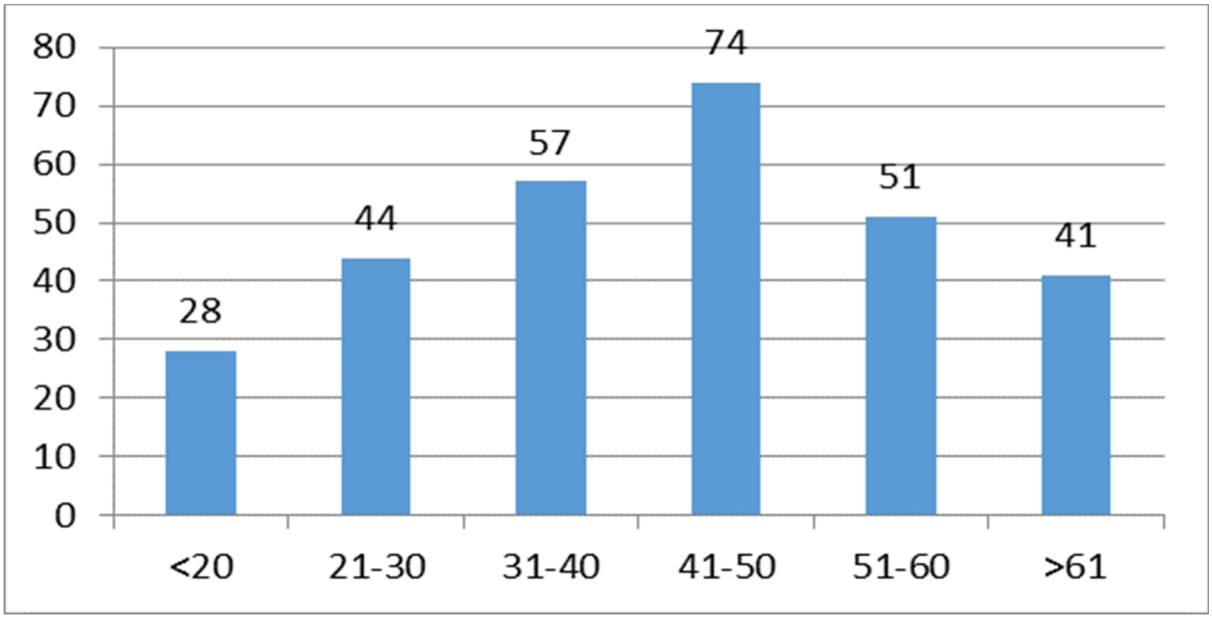


Fig. 15: Age wise distribution of patients having Benign and Malignant Breast Lump

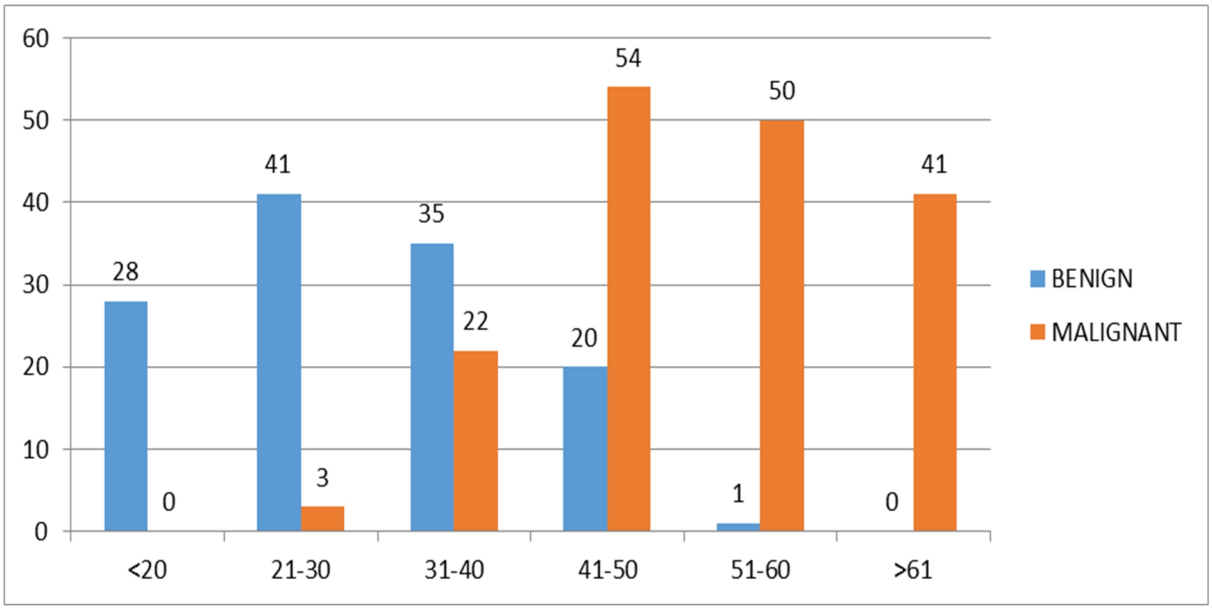


Table 7 : Gender wise distribution in patients with breast lumps

Gender	Frequency	Percent
Male	5	1.7%
Female	290	98.3%
Total	295	100.0%

Table 8 : Distribution of Breast lumps in various quadrants of breast

QUADRANT	Frequency	Percent
upper outer	110	37.3%
lower outer	58	19.7%
upper inner	43	14.6%
lower inner	49	16.6%
Central	35	11.9%
Total	295	100.0%

Table 7 shows around 5 patients among the 295 were male and the rest were female and the incidence was found to be 1.7 %

Table 8 shows the common sites of breast lumps and the commonest site is the upper outer quadrant and the least common site is the central quadrant of breast.

Fig. 16 : Gender wise distribution in patients with breast lumps

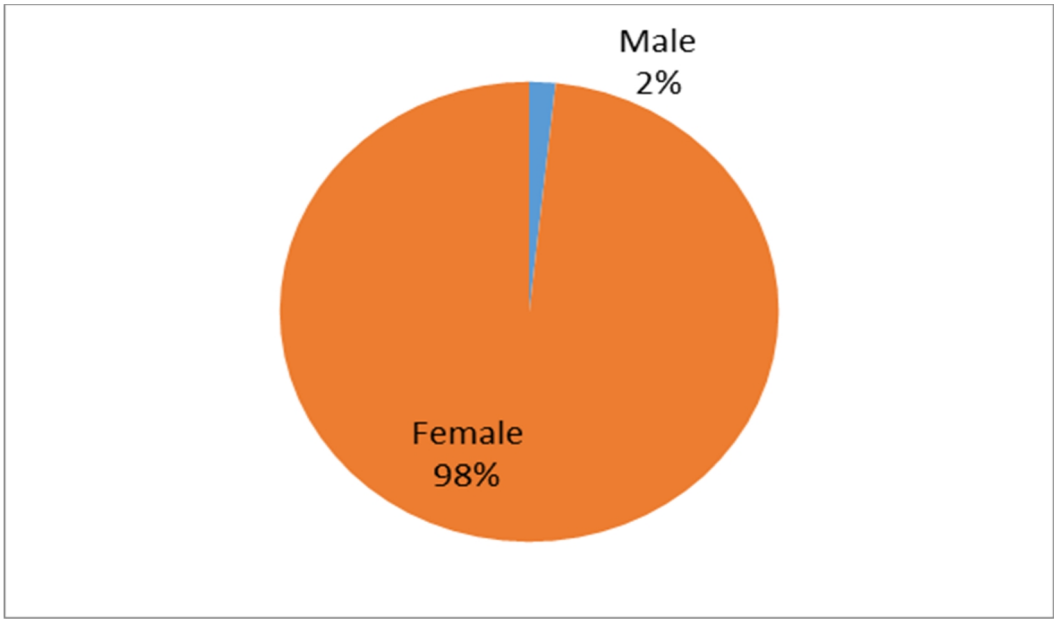


Fig. 17 : Distribution of Breast lumps in various quadrants of breast

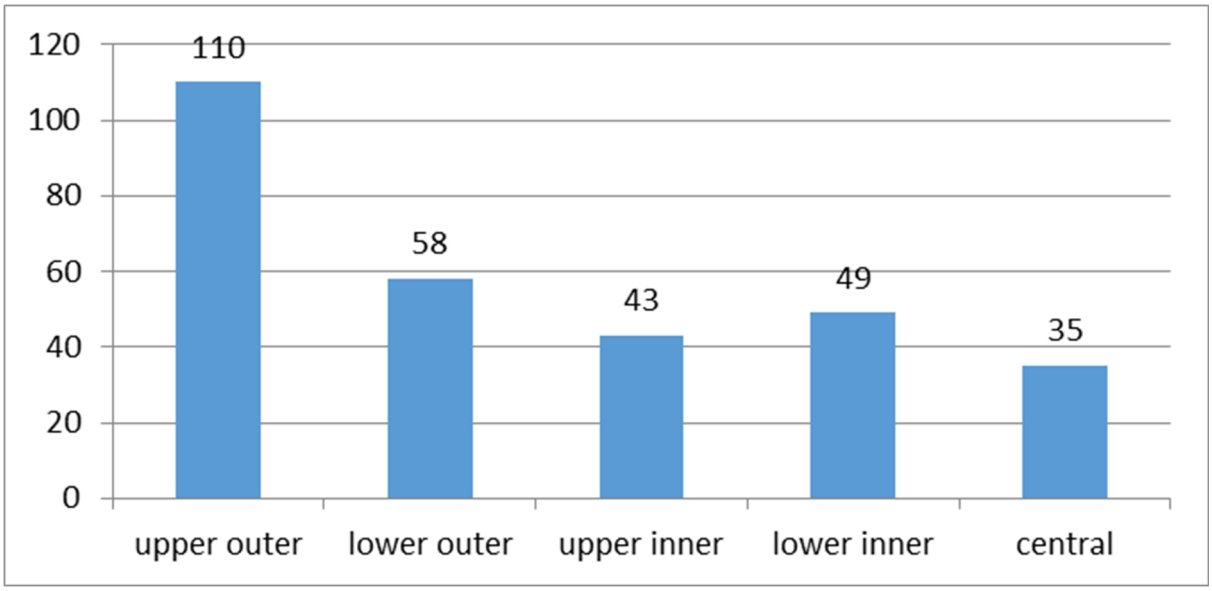


Table 9: Results of Fine Needle Aspiration Cytology

Diagnosis	**Benign**	**Malignant**	**Suspicious**	**Total**
Frequency	139	**153**	**3**	**295**

Table 10: Results of Tru-cut Biopsy

Diagnosis	**Benign**	**Malignant**	**Suspicious**	**Total**
Frequency	**127**	**164**	**4**	**295**

Table 11: Results of Histopathology

Diagnosis	**Benign**	**Malignant**	**Total**
Frequency	**125**	**170**	**295**

Observations and results of benign lumps- FNAC

Out of the 295 patients who were studied, 142 patients who were reported as benign lesions, 125 were confirmed to have benign lesion by Histopathology .

Observations and results of malignant lumps- FNAC

Of the total 170 patients of histologically proven malignancy, FNAC had reported 153 malignant, 17 cases as false negative cases. there were zero false positive

cases. Inadequate (unsatisfactory) sampling report were observed in three cases, which on repeat fine needle aspiration cytology revealed malignancy, later confirmed by histopathology.

Accuracy rate for diagnosing malignant lesions by FNAC is 94.24 %

Unsatisfactory specimen rate = 1.01%

Observations and results of benign lumps- Tru-cut Biopsy

Out of the 295 patients who were studied, 131 patients who were reported as benign lesions, 125 were confirmed to have benign lesion by Histopathology .

Observations and results of malignant lumps- Tru-cut Biopsy

Of the total 170 patients of histologically proven malignancy, Tru-cut had reported 164 malignant, 6 cases as false negative cases. there were zero false positive cases. Four cases were reported as unsatisfactory (inadequate) sampling, which on excision biopsy revealed malignancy.

Accuracy rate for diagnosing malignant lesions by Tru-cut is 97.97 %

Unsatisfactory specimen rate = 1.35 %

Table 12: The result of Fine Needle Aspiration Cytology

FNAC REPORT	Frequency	Percent
Fibroadenoma	102	34.6%
Fibrocystadenosis	15	5.1%
Malignancy	153	51.9%
Phyllodes tumour	7	2.4%
Others	15	5.1%
Inconclusive	3	1.0%
Total	295	100.0%

Table 13: The results of Tru-cut Biopsy

TRUCUT REPORT	Frequency	Percent
Fibroadenoma	99	33.6%
Fibrocystic disease	13	4.4%
S/o Malignancy	165	55.9%
Phyllodes tumour	12	4.1%
Others	2	0.7%
Inconclusive	4	1.4%
Total	295	100.0%

Table 14: The results of Post operative Histopathology report

BENIGN / MALIGNANT	Frequency	Percent
Benign	125	42.4%
Malignant	170	57.6%
Total	295	100.0%

Fig.17 : The result of Fine Needle Aspiration Cytology

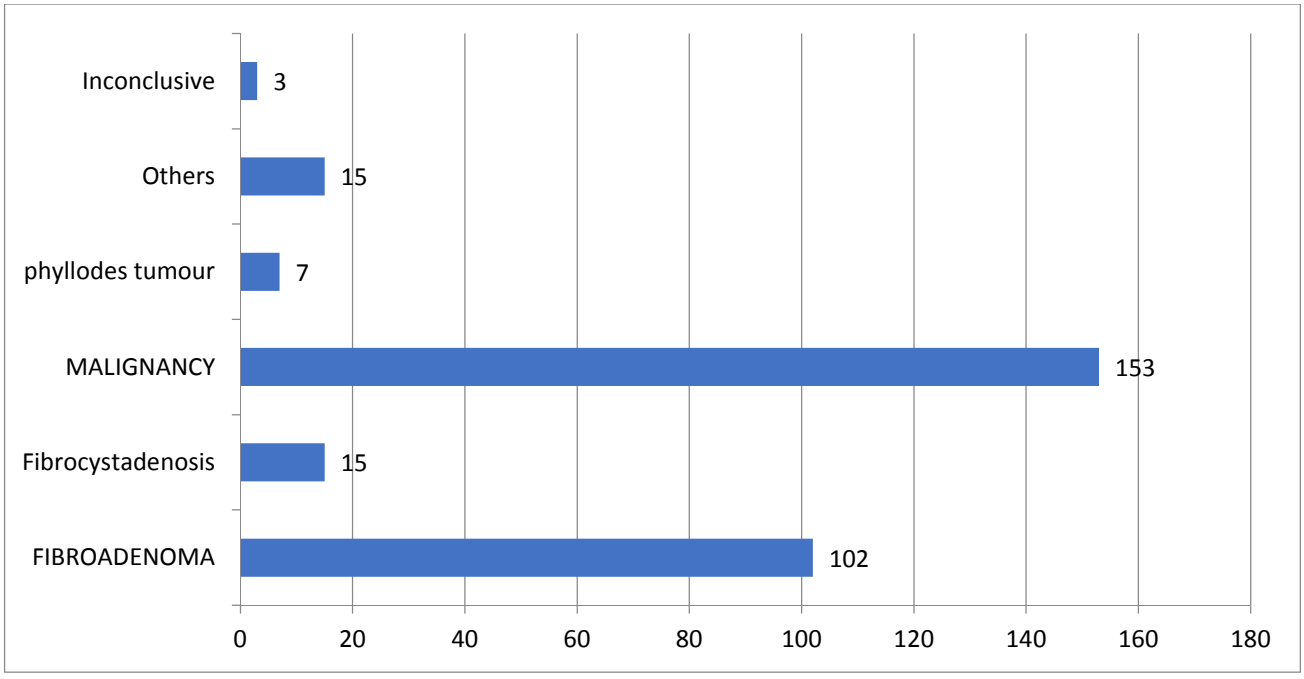


Fig.18 : The results of Tru-cut Biopsy

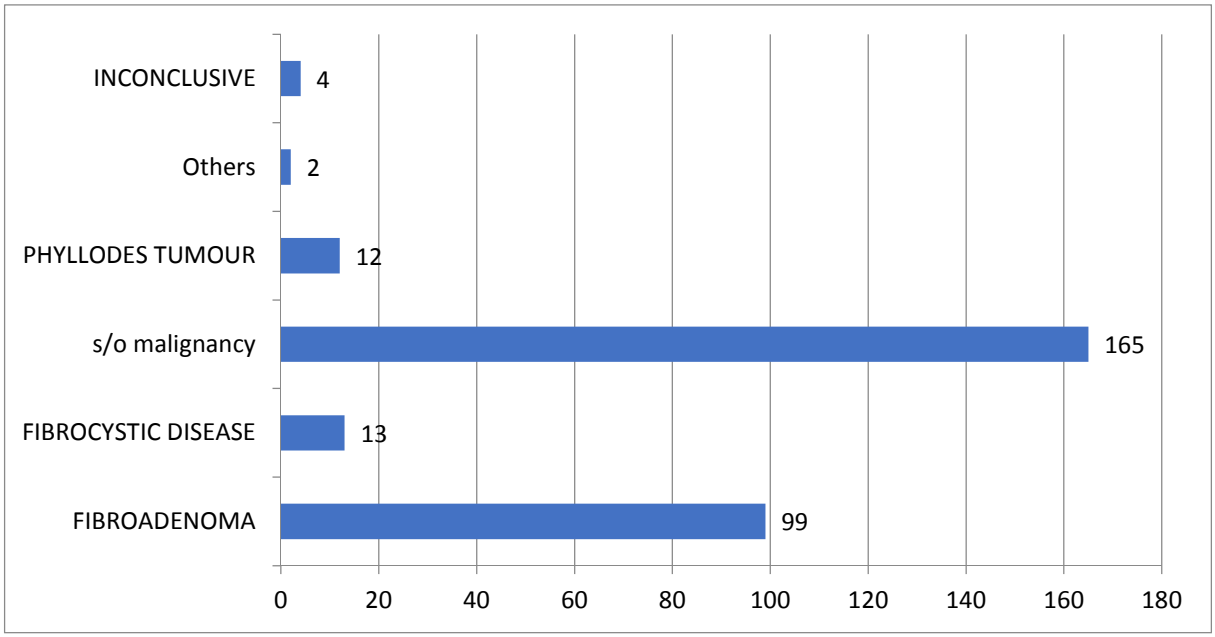


Fig.19 : The results of Post-operative Histopathology report

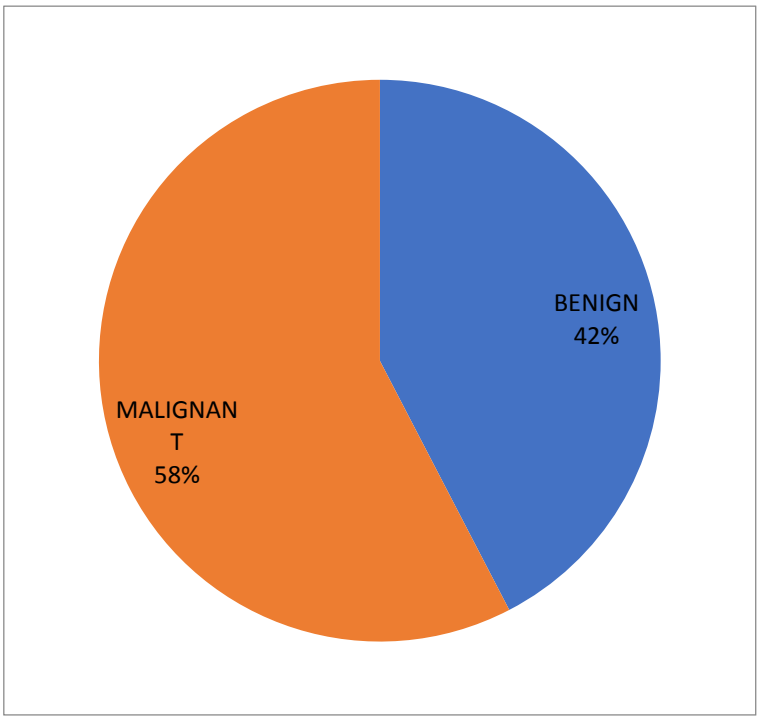


Fig. 20 : The results of Post-operative Histopathology report

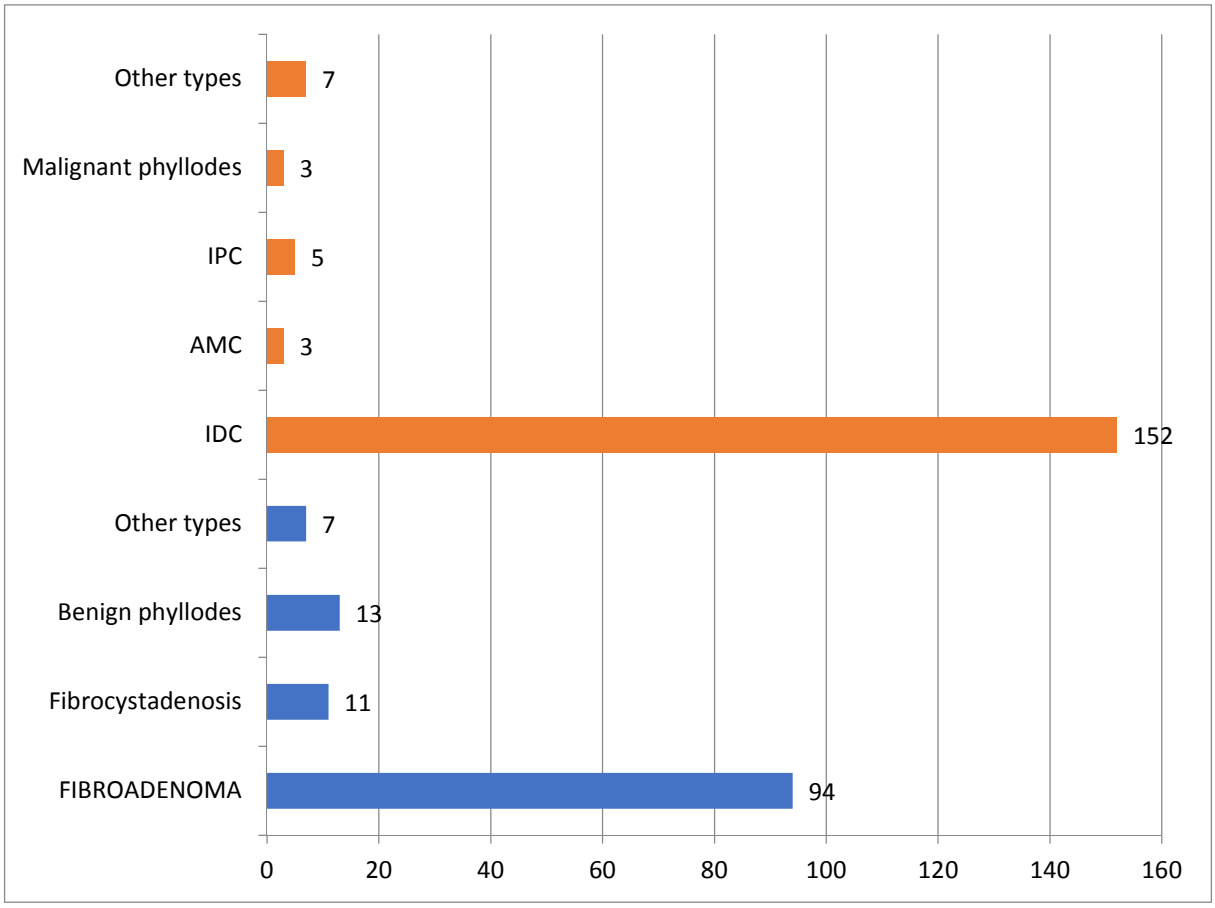


Table 15: Histopathological reports of Benign Breast Lesions

Diagnosis	**Frequency**	**Percentage**
Fibroadenoma	94	75.2%
Fibrocystadenosis	11	8.8%
Benign phyllodes	13	10.4%
Other types	7	5.6%
Total	125	100%

Table 16: Histopathological results of Malignant Breast Lesions

Diagnosis	Frequency	Percentage
IDC	152	89.4%
AMC	3	1.7%
IPC	5	2.9%
Malignant phyllodes	3	1.7%
Other types	7	4.1%
Total	**170**	**100%**

Fig 21: Histopathological reports of the Benign Breast Lesions

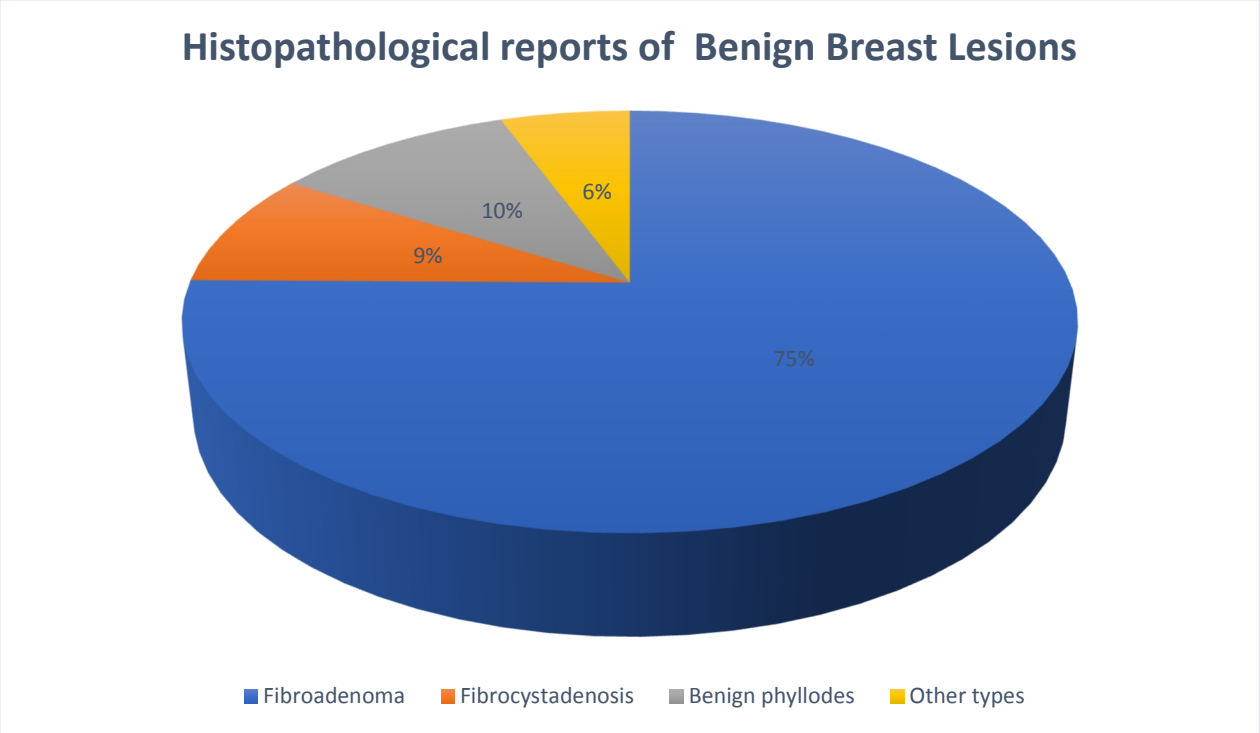


Fig 22: Histopathological results of Malignant Breast Lesions

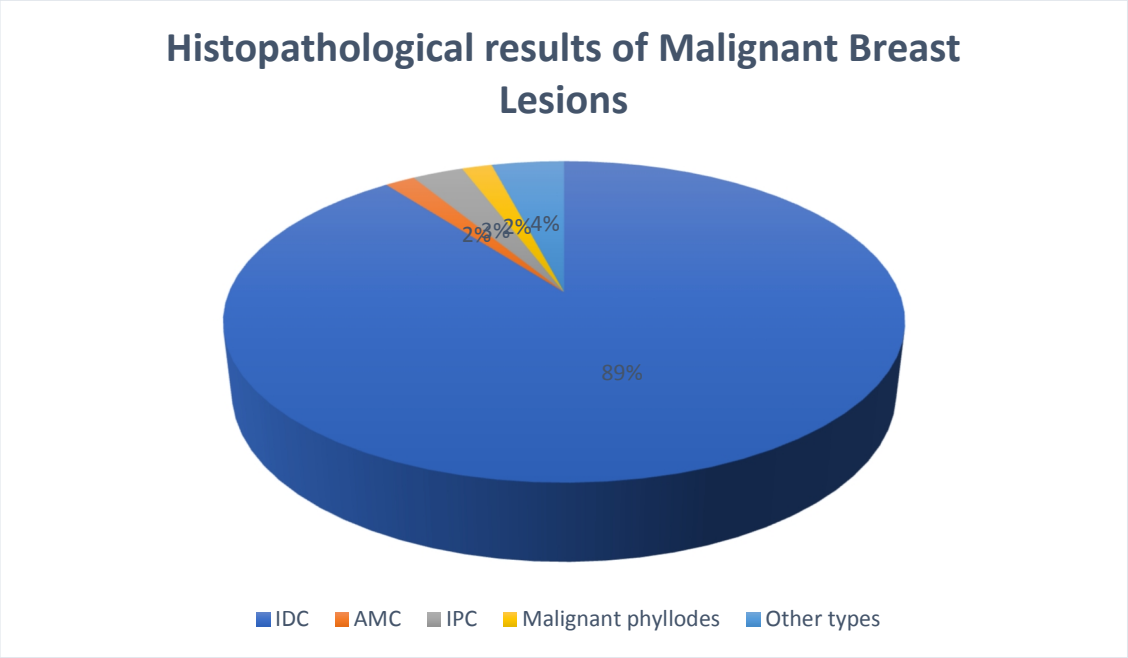


Table 17: The predictive value of FNAC of Palpable Breast Lump

FNAC	HPE		Total	P value
	Malignant	Benign		
FNAC Malignant	153	0	153	
FNAC Benign	17	125	142	<0.0001

Table 18: The predictive value of Tru-cut Biopsy of the palpable breast lump

TRUCUT	HPE		Total	P value
	Malignant	Benign		
TRUCUT Malignant	164	0	164	0.031
TRUCUT Benign	6	125	131	

1. **Sensitivity =** **True Positive**

---------- **X 100**

True positive + False positive

Sensitivity of FNAC= 90.00%

Sensitivity of Tru-cut Biopsy= 96.47%

2. **Specificity =** **True Negative**

---------- **X 100**

True Negative + False positive

Specificity of FNAC= 100%

Specificity of Tru-cut Biopsy= 100 %

3. **Positive Predictive Value =** **True Positive**

---------- **X 100**

True Positive + False Positive

PPV of FNAC= 100%

PPV of Tru-cut Biopsy= 100%

4. **Negative Predictive Value = True Negative**

   ---------- X 100

   True Positive + False Negative

   NPV of FNAC= 88.03%

   NPV of Tru-cut Biopsy= 95.42%

5. Inadequate sampling (Unsatisfactory report) Of the total 33 cases of malignant lesions inadequate sampling report by FNAC were noted in 3 patients, which on repeat fine needle aspiration cytology revealed malignancy, and later was confirmed by histopathology. Similarly, 4 cases were reported as inadequate sampling by tru –cut biopsy, which on excision biopsy revealed malignancy.

   Inadequate sampling rate = No. of unsatisfactory report

   ---------- X 100

   Total No. of Cases

   Inadequate sampling rate of FNAC= 1.0%

   Inadequate sampling rate of Tru-cut Biopsy= 1.4.%

Fig 23: The Predictive value of FNAC of Palpable Breast Lump

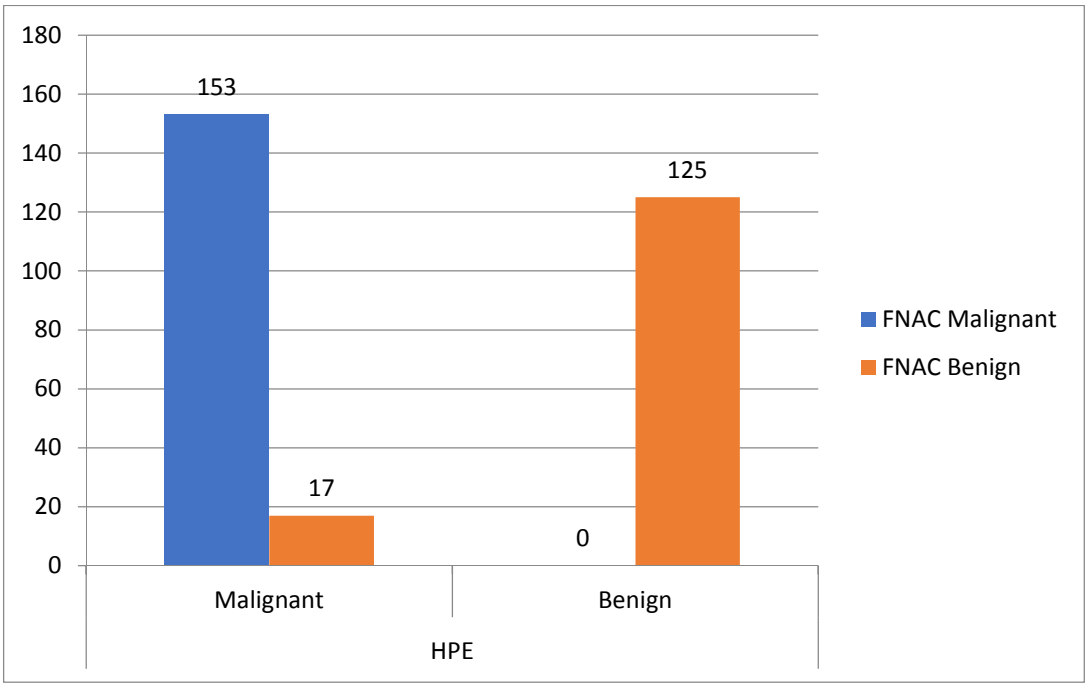


Fig 24: The Predictive value of Tru-cut Biopsy of the palpable breast lump

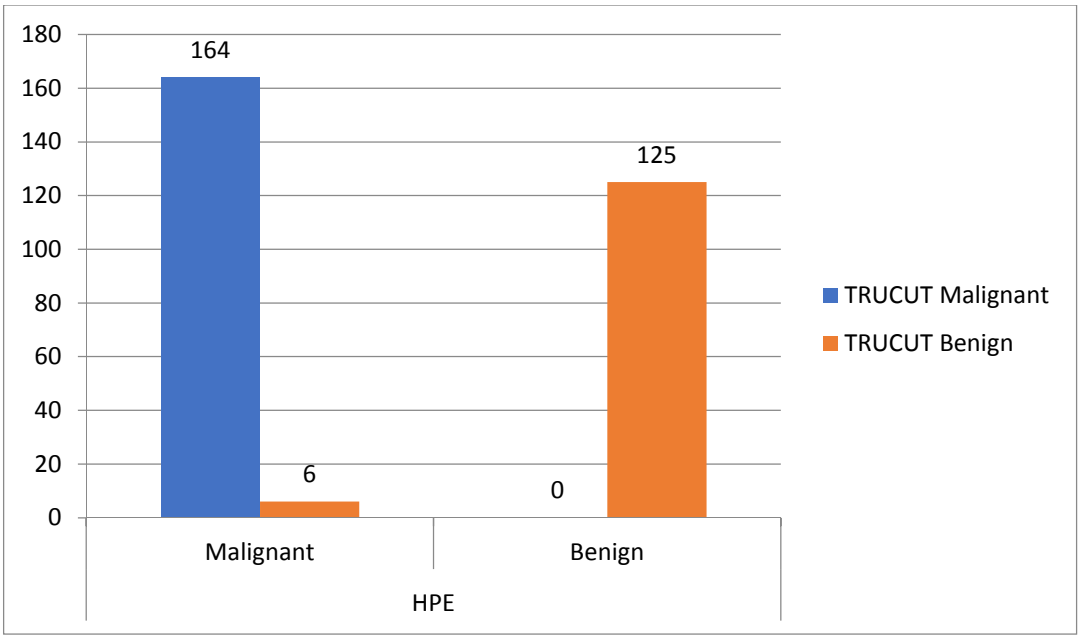


Table 19: Distribution of cases- Robinson cytological grading system

Grade	No.of cases	Percentage
1	23	15
2	83	54
3	47	31
Total	153	100%

Table 20:: Distribution of cases- Scarff Bloom Richardson histological grading method

Grade	No.of cases	Percentage
1	13	8
2	89	54
3	62	38
Total	164	100%

DISCUSSION

Breast lump is a common complaint raised by patients in all major hospitals in the ambulatory surgery unit, with fear of potential malignancy being particularly common.[4,5] Accurate carcinoma diagnosis has long been a clinical challenge. In the early stages of the disease, a differential diagnosis of benign, inflammatory and malignant lesions is very important. It is extremely important to avoid unnecessary surgery or invasive treatment for benign diseases and to actively control malignant lesions in early stages. For Fine Needle Aspiration Cytology (FNAC), Breast is a typical and essential location.

There has been a growing need to prove the diagnosis of carcinoma breast at the patient's initial visit in the form of needle cytology or biopsy.[3,12] It allows for better assessment and prudent preoperative contact with the patient than with the frozen section or excision biopsy which confirmed the diagnosis through physical examination.

With the advancement of fine needle aspiration and cytology as the main diagnostic tool in cancer over the past 30 years, immense and unprecedented progress has been achieved. It was well known that it was used to detect the existence of carcinoma before the surgical procedure and to guide the appropriate treatment. In addition, several studies have demonstrated the importance of methodological use of tru-cut biopsy for carcinoma breast detection despite the presence of medical, radiological and cytological examinations of good quality.[11]

Our current research was performed on 295 patients having palpable lump in breast. The patient was subjected to fine-needle aspiration cytology after receiving informed consent, accompanied by tru-cut biopsy from the lump with subsequent surgical procedure such as lumpectomy or modified radical mastectomy as determined by the FNAC and histopathology document test. The results of aspiration cytology and the results of tru-cut biopsy are combined with the final histopathological study to determine how reliable the cytology of fine needle aspiration was relative to tru-cut biopsy when determining the cytohistological connection

The age range of the selected patients in our study, range from 14 years to 80 years and the most common age group having benign breast lump is 21 – 30 years and that of malignant breast lump is 41 – 50 years of age. The most common benign pathology encountered among the patients in our study was fibroadenoma among (94 patients). Subsequently fibrocystadenosis was observed in 11 patients, benign phyllodes in 13 patient and other benign conditions like mastitis, epitheliosis and ductal hyperplasia was found in 7 patients and malignancy in patients. Fibroadenoma has been regarded as an important cause for false positive diagnosis.

Our study showed 170 malignant lesions, with invasive ductal carcinoma as commonest malignant lesion reported in FNAC and tru-cut biopsy. One case was reported as having infiltrating ductal Carcinoma with neuroendocrine differentiation. Malignant lesions were responsible for 57.6% of breast lumps (170 out of total 295 cases). While the peak incidence is observed in post menopausal women, it may be seen as early as in the third decade. In cytology, as much cellular smear appears, often with necrotic background, mo nomorphic cell population with variable cell patterns including noticeable loss of cellular cohesion, numerous isolated single cells and variable anisonucleosis deg ree.[33]

Depending on the grade, HPE can form glands and tubules, show stromal desmoplasiaand contain mitosis round to oval nuclei.

In a study by Tiwari et al[56] in 91 patients Fibroadenoma (39.6 percent) was the most common lesion. For 5.5 percent -7.7 percent of cases, other benign conditions such as fibrocystic disease, galactocele, breast abscess, duct ectasia were responsible. Furthermore, 6.6 percent of the 91 cases are responsible for invasive ductal cancer. In a study by A. Khemka et al.[6], fibroadenoma was found to be commonest pathology, fibrocystic disease noted in 4 patients among 29 patients and followed by malignancy observed in 13 patients. In their research, Sumaira Zareef et al[54] and Ashwin[12] also found the most common breast lesion in fibroadenoma.

The purpose of our study, as described above, was to deduce the diagnostic correlation between fine needle aspiration cytology and tru-cut biopsy compared to the histopathological result of the breast lump. This helps us to infer how accurate and reliable FNAC is relative to Tru-cut biopsy in the assessment of the pathology, which further enables the preparation of a definite operation without giving the specimen's final histology document objectionable.

Cytological reports analysis in different series confirms FNAC's high diagnostic accuracy. We conducted this prospective study of FNAC and tru-cut biopsy of clinically palpable lump in the breast with reporting histopathology correlation. Out of the 295 patients who were studied, 142 patients who were reported as benign lesions, 125 were confirmed to have benign lesion by Histopathology . Of the total 170 patients of histologically proven malignancy, FNAC had reported 153 malignant, 17 cases as false negative cases. there were zero false positive cases. Inadequate (unsatisfactory) sampling report were observed in three cases, which on repeat fine needle aspiration cytology revealed malignancy, later confirmed by histopathology. The Accuracy rate for diagnosing malignant lesions by FNAC is 94.24 % and the unsatisfactory specimen rate is 1.01%. The overall sensitivity of FNAC in diagnosing a malignant lesion in this study was 90.00%, and specificity was 100.00%,

Analysis of tru-cut biopsy reports revealed higher diagnostic accuracy. Out of the 295 patients who were studied, Trucut biopsy 131 patients as benign lesions, 125 were confirmed to have benign lesion by Histopathology . Of the total 170 patients of histologically proven malignancy, Tru-cut had reported 164 malignant, 6 cases as false negative cases. there were zero false positive cases. Four cases were reported as unsatisfactory (inadequate) sampling, which on excision biopsy revealed malignancy. Accuracy rate for diagnosing malignant lesions by Tru-cut is 97.97 %. Unsatisfactory specimen rate is 1.35 %. The overall sensitivity of trucut in diagnosing a malignant breast lesion in our study was 96.47%, specificity was 100%.

The sensitivity of the concerned investigation is its statistical index. This certainly indicates that the infection is present if the particular test result is positive. Nevertheless, if the outcome is negative, then the risk of infection will not be eliminated. Furthermore, its specificity determines the effectiveness of the investigation to identify patients who do not have the disease.

A test's positive predictive value is the patient's likelihood of having the disease with a positive outcome and thus evaluating the test's diagnostic capacity.

Furthermore, the test's unfavorable predictive value dictates the patient's probability of not having the disease with a negative outcome.

A test's positive predictive value indicates a patient's likelihood of having the disease with a positive outcome. It therefore reveals the diagnostic potential of the test because, on the other hand, the negative predictive value of a test suggests the probability that a person with a negative result will not have the disease.

The positive predictive value of FNAC to diagnose a malignant breast lesion was 100.00% and negative predictive value was 88.03% in this study.

The positive predictive value of tru-cut biopsy in diagnosing a malignant breast lesion in our study was 100.00% and negative predictive value was 95.42%.

Table 21: Comparison of various studies- Fine needle Aspiration cytology of Palpable breast lump[73]

Name of study	Sensitivity	Specificity
Hussain M T[47]	90.9%	100%
Aziz M et al[48]	85.29%	100%
Abdulrahman et al[51]	91.70%	100%
O.N. Alema et al[57]	83.3%	100%
Sudarat et al[58]	92.50%	90.20%
Ahmed HG[61]	92.60%	95.20%
A.Khemka et al[6]	96.00%	100%
Tiwari et al[56]	83.00%	100%
Nggada HA et al[59]	95.70%	98.70%
Muzaffar et al[72]	85.29%	100%
Rubin J et al[46]	87.00%	100%
Yeoh et al[64]	79.00%	98.00%
Choi et al[74]	77.70%	99.20%
Our study	90.00%	100%

As described above, a test's positive and negative predictive values are the statistical indices that measure a test's performance by measuring its "predictive value" that reflects the test's diagnostic power. It depends on the sensitivity,

specificity and disease prevalence. In this regard, Franco et al.[75], in his study of 300 patients on the utility of FNAC, reported a positive predictive value of 100% and a negative predictive value of 92%. A very large study of 1,297 patients was done by Choi et al.[74] on correlation of FNAC with histopathology reports, and found the positive predictive value to be 98.4% and a negative predictive value of 88%.

Our study had 17 false negative reports. Although these findings can be viewed as a sampling error, their effect on treatment may be significant. A confirmed failed aspiration for a breast lump is better treated as a non-report and it is prudent to repeat biopsy. In this respect, cellular fibroadenoma and papilloma carry a risk. Numerous other studies showed a 0-10 percent [36] false positive result. In order to avoid false positive results, care must be taken to avoid an incorrect conclusion.

The lesions that may have false positive findings are papillary lesions, atypical epithelial hyperplasia, ductal epithelium atypia in a cyst. And in low-grade malignancy, complex proliferative lesion, even tumors with central necrosis, small cell carcinoma, the possibility of a false negative diagnosis is present. The main advantage of FNAC in the sense of breast pathologies is that in

separating benign and malignant lesions, there are very few false positives. Throughout his studies, Silverman et al. also demonstrated that, contrary to tru-cut biopsy, fine needle aspiration cytology has a higher positive predictive value in the identification of carcinoma and chronic disease locally.

The appearance in the study of unsatisfactory and insufficient sampling due to less or no cellular material leads us to wonder about any error in the aspiration process. Three expectations in this sample were unsatisfactory, resulting in an insufficient sampling rate of 3.9%. The rate of insufficient sampling ranged from 9% to 18% in different studies[17].

FNAC for breast lump diagnosis is the reliable, quick, cost-effective and simple procedure. Although slightly less sensitive than tru-cut biopsy, it is a valuable tool. FNAC is highly predictive and accurate for breast lesions when used in context of other diagnostic modalities (clinical & radiological= triple test).[13] On the other hand, Yong et al. preferred the FNAC over tru-cut biopsy as it produced less complication, able to perform multidirectional sampling and there was a technical problem of immobilizing the lump while using tru-cut needle.[7,8] A few advantages noted with tru–cut biopsy was that it offered the histological type of tissue preoperatively and valuable information on prognostic parameters such as oncogene and anti-oncogene expression (c-erbB2 & p53), receptor status, proliferative activity and ploidy. This will encourage the oncologist and surgeon

to choose the optimal therapeutic step with appropriate neo-adjuvant chemotherapy.

The tru-cut biopsy of observable breast lesions based on the histological examination of tissue samples has the benefit of providing the histological type preoperatively and data on prognostic parameters (receptor status, proliferative function, ploidy and expression of oncogenes and antioncogenes such as c-erbB-2 and p53) that will direct the surgeon and the oncologist for the ideal modern therapy[13].

Hatada et al. reported that in the diagnosis of breast lumps, the combination of FNAC and tru-cut biopsy has improved sensitivity and accuracy. Ibrahim et al. indicated that FNAC was capable of sampling larger and slightly different areas of breast tissue, while tru-cut biopsy was only one region of volume. Thus combining the two procedures may diminish false negative outcomes.

Different authors followed different cytological grading systems, some even tried to compare them and determine the most appropriate ones[13].

Frias et al analyzed 100 cases of invasive ductal carcinoma, cytological grading was performed using the method of Robinson and histological grading was performed using SBR process. A statistically significant correlation of cytological and histological grades and cytological grades was observed. Similarly, there was a positive correlation between cell dissociation, cell uniformity and the presence of nuclear margins with regional metastasis.[3]

In a study conducted by Khan et al that included 43 cases of infiltration of carcinomas, Robinson's grading method used cytological grading and SBR grading method used histological grading. Cytological grading was found to be comparable to histological grading, the difference between the two grading methods was insignificant in all three of the six parameters studied, the most influential being cell dissociation, nuclei and chromatin pattern.[33]

Chhabra et al studied 60 cases of breast carcinoma where the process used by Robinson to assess cytological smears and the grading of SBR was used to grade histologically. For 65 percent of tumors, there was consensus between cytological grade and histological level. The grade of histology correlated positively with the grade of cytology. The study also showed that the most important characteristics were the degree of cell dissociation and nucleoli.[24]

CONCLUSION

In our research, Tru-cut biopsy's accuracy level has been stated to be more than FNAC's accuracy rate. Given the failure of tru–cut biopsy to provide additional details on receptor status, tumor level, and form with lymphovascular invasion, FNAC stands as an active and reliable method in the pre-operative diagnosis of benign and malignant lesions as the first line diagnostic modality.

In fine needle aspiration cytology, 142 patients had benign breast lesion, suspicious lesion in 3 patients and malignant lesion in 153 patients with a false negative result in 17 patients and false positive result in none of the patients. Review of various cytological studies showed the high diagnostic accuracy for cytology of fine needle aspiration. FNAC's clinical reliability was 100% for benign lesions. In this analysis, FNAC's sensitivity to detect a malignant lesion was 90.00 percent with a precision of 100 percent, a positive predictive value of 100 percent, and a negative predictive value of 88.03 percent.

Tru-cut biopsy analysis revealed higher accuracy in the diagnosis. 131 patients had benign breast lesion in Tru-cut biopsy, suspicious in 4 and malignant in 164 patients with a false negative outcome in 6 patients and a false positive outcome in zero patients. In benign lesion, the diagnostic accuracy of tru-cut

biopsy was also 100%. In this study, the overall sensitivity of tru-cut in the diagnosis of malignant breast lesion was 96.47%, the precision was 100%, the positive predictive value was 100% and the negative predictive value was 95.42%.

The sensitivity, specificity, and diagnostic effectiveness observed by FNAC in our data were comparable to those observed in Tru-cut biopsy and other texts. FNAC is a simple, reliable, repeatable and patient-friendly procedure. It is also a quick diagnostic test that can be carried out in busy clinical settings and does not require too much planning or costly equipment. A high positive predictive value and high sensitivity indicate that the final diagnosis of the disease is confirmed by a positive report of fine needle aspiration cytology when correlated with the histological report. A high negative predictive value and high specificity show FNAC's high precision level in diagnosing a malignant breast lesion.

Moreover, the Robinson cytological grading system correlates precisely with the grade of histology. There was a positive correlation between Robinson cytological grading system and Scarff Bloom Richardson histological grading system. Discordance between cytological gradation and histological gradation has been observed in a few cases that may be due to sampling error, the presence of

different degrees of atypia within the same tumor, and the subjective nature of the grading process. Cytological classification allows the prognostic assessment of the carcinoma of the breast along with treatment to the patient without unnecessary morbidity or cost. Hence it is recommended that cytological nuclear grade should appear in FNAC reports of ductal breast carcinoma for proper management.

Fine needle aspiration cytology (FNAC) is a rapid, less complicated, economical, reliable and relevant method for the preoperative pathological diagnosis of breast lump in a developing nation like ours. Trucut biopsy was able to give histological diagnosis and results correlated 100% with the final histopathological report. It also gives further information about tumor type, grade, lympho vascular invasion and receptor status. Even if TCNB report comes out to be negative , one should proceed with excisional or incisional biopsy and according to histopathological report , patient can be planned for further surgery. Thus If the initial FNAC is inadequate, core needle biopsy (CNB) can be a useful second line method of pathological diagnosis in order to minimize the chance of missed diagnosis of breast cancer.

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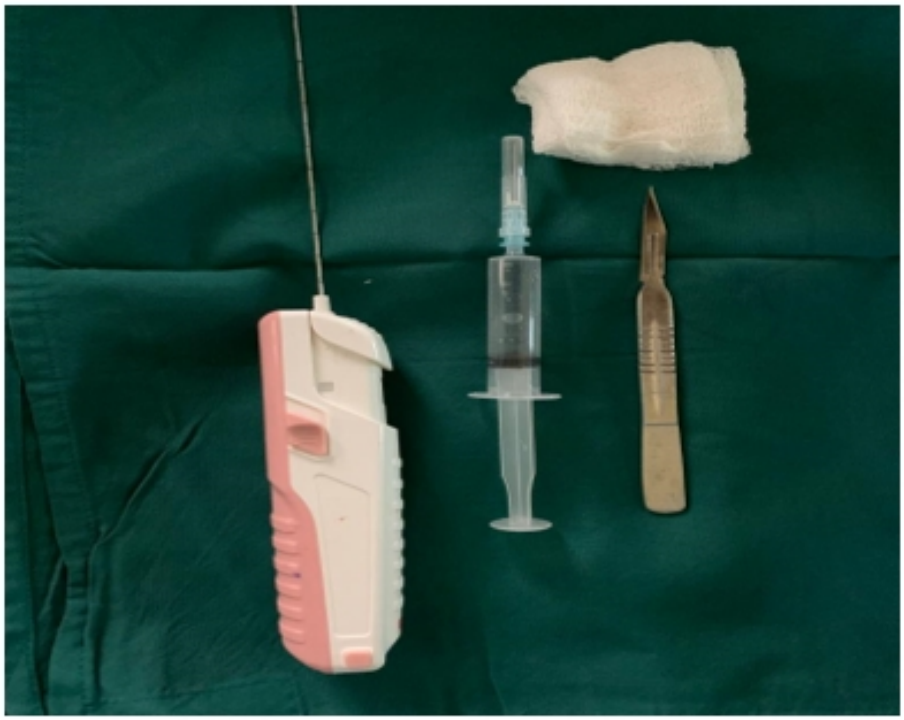
ANNEXURE – I

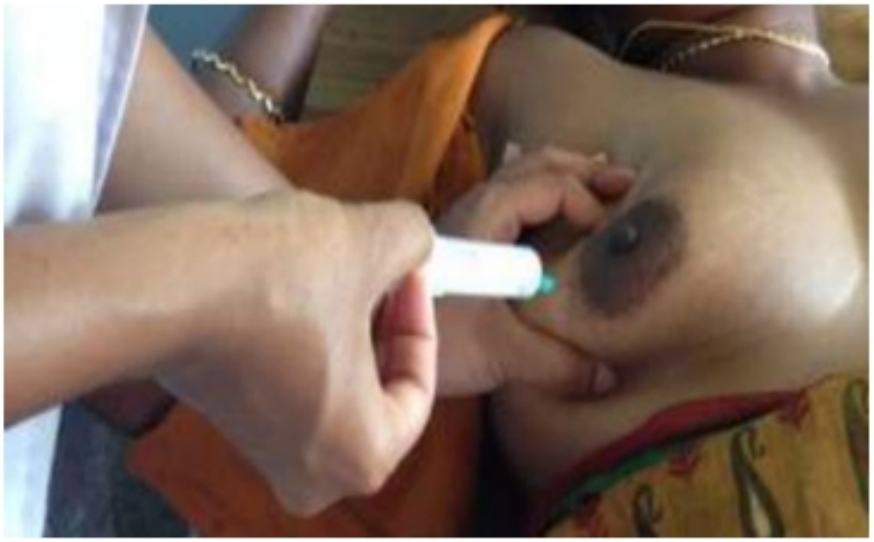
FNAC Materials

TRUCUT biopsy Materials

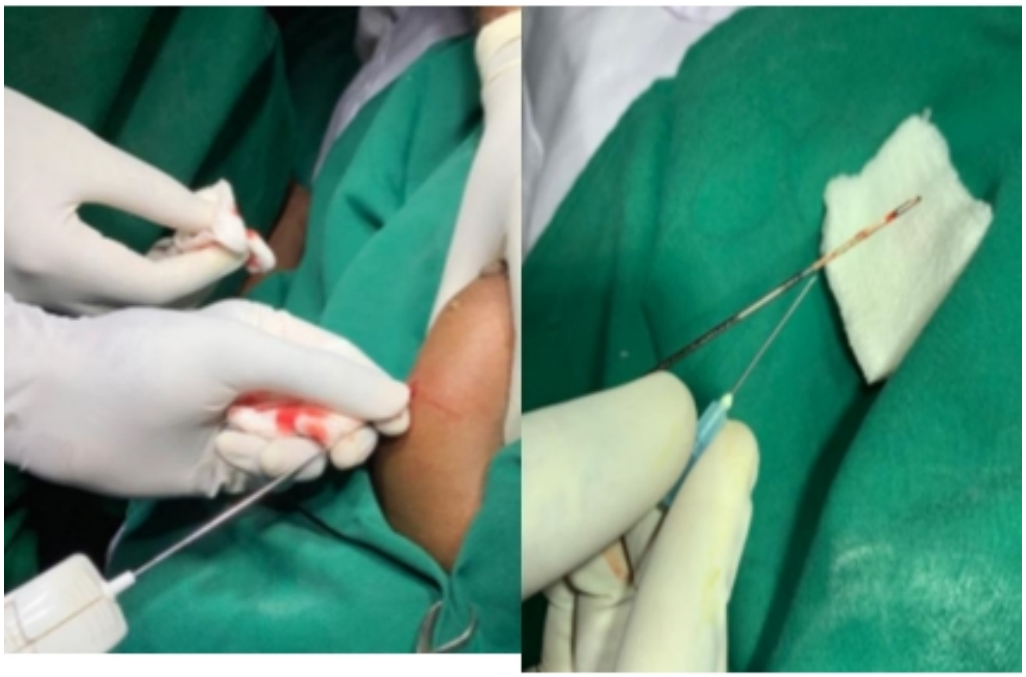


ANNEXURE – II

FNAC from breast lump



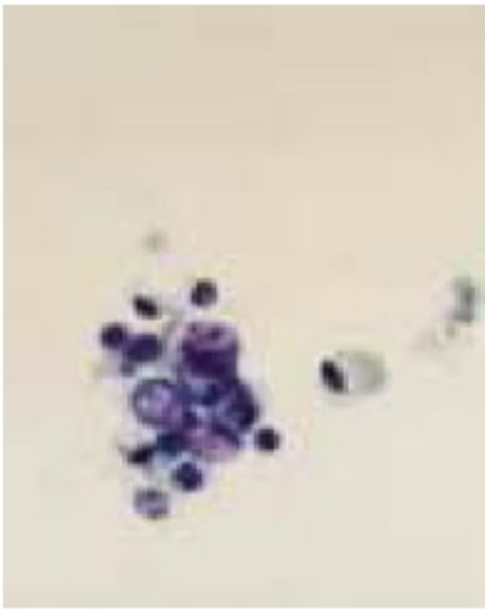
TRUCUT biopsy from breast lump



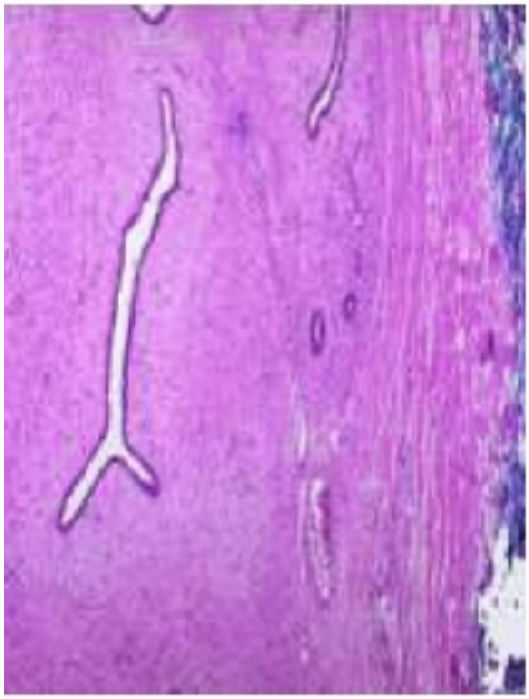
ANNEXURE – III

Cytology Result of Benign Lesion

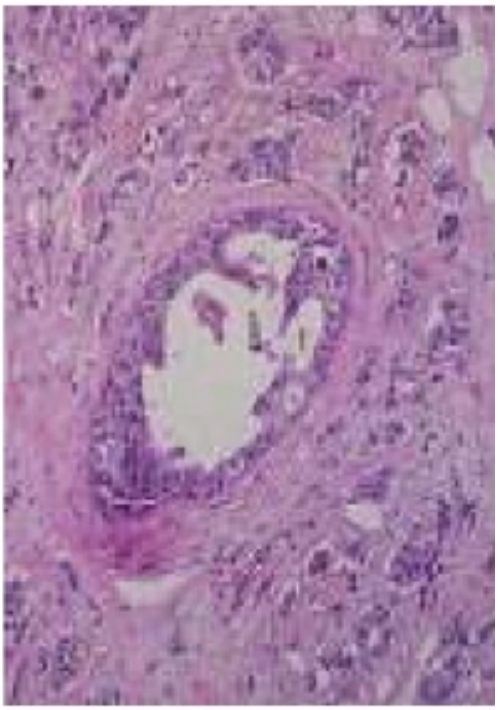
Cytology Result of Malignant Lesion



Histological appearance of Fibroadenoma



Histological appearance of Invasive ductal Carcinoma



PROFORMA FOR COLLECTING THE DATA

Case No.

NAME:

AGE:

SEX:

D.O.A

D.O.O:

D.O.D

OCCUPATION:

ADDRESS:

CHIEF COMPLAINTS:

1) Lump

2) Pain

3) Discharge from nipple

4) Retraction of nipple

5) Other complaints

HISTORY OF PRESENTING ILLNESS:

1) PAIN:

a. Duration

b. Time and mode of onset

c. Site of pain:

d. character of pain

e. radiation of pain

f. Aggravating factors and Reliving factors

PAST HISTORY

1) History of similar complains

2) Duration

3) Treatment taken

4) History of previous surgeries

5) History suggestive of Hypertension/ Diabetes/ Tuberculosis

PERSONAL HISTORY

Diet: Vegetarian/ Mixed

Habits: Smoking/ Alcohol/ Tobacco

Bowel habits and habits Bladder

Sleep

OCP intake

FAMILY HISTORY

Marital status

Similar illness in other family members

MENSTRUAL HISTORY

Age of menarche

Dysmenorrhea

L. M. P.

GENERAL PHYSICAL EXAMINATION

1. General survey

2. Body build and nourishment

3. Appearance

4. Attitude: Restless/ Quiet

5. Dehydration: Mild/ Moderate/ Severe/ Nil

6. Anaemia/ Jaundice/ Clubbing/ Cyanosis/ Lymphadenopathy/ Pedal oedema 7. Pulse

8. Temperature

9. Respiratory rate

10. Blood pressure

LOCAL EXAMINATION

INSPECTION BREAST

Position

Size and shape

Any puckering or dimpling Skin over the breast

NIPPLE –size and shape, Surface, Discharge,

AREOLA

ARM AND THORAX

AXILLA AND SUPRACLAVICULAR FOSSA

PALPATION

Local rise of temperature

Tenderness

Situation

Size and shape

Surface and margin

Consistency

Fluctuation

Fixity to the skin

Fixity to the breast tissue

Fixity to the underlying fascia and muscles

Fixity to the chest wall

Palpation of the nipple

EXAMINATION OF LYMPH NODES

RECTAL EXAMINATION

VAGINAL EXAMINATION

SYSTEMIC EXAMINATION

- Cardiovascular system
- Respiratory system
- Central nervous system
- Genito-urinary system
- Abdominal examination

INVESTIGATIONS

1. Blood: Hb %

2. TLC

3. DLC

4. BT

5. CT

6. ESR

7. Blood group and Rh type

8. Urine: Albumin/ Sugar/ Microscopy

9. Chest x-ray

10. HIV & HbsAg

12. Others

DIAGNOSIS

FNAC report

TRUCUT biopsy report

MANAGEMENT

Post- Opertive HPE Report

நோயாளிகளுக்கு அறிவிப்பு மற்றும் ஒப்புதல் படிவம்
(மருத்துவ ஆய்வில் பங்கேற்பதற்கு)

ஆய்வு செய்யப்படும் தலைப்பு:
பங்கு பெறுவரின் பெயர்:
பங்கு பெறுவரின் வயது:

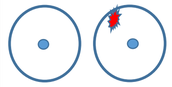
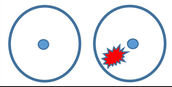
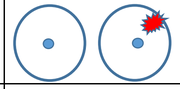
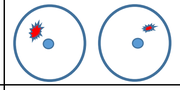
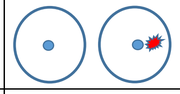
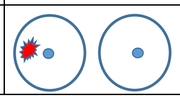
		பங்கு பெறுவர் இதனை ✓ குறிக்கவும்
1.	நான் மேலே குறிப்பிட்டுள்ள மருத்துவ ஆய்வின் விவரங்களை படித்து புரிந்து கொண்டேன். என்னுடைய சந்தேகங்களை கேட்கவும், அதற்கான தகுந்த விளக்கங்களை பெறவும் வாய்ப்பளிக்கப்பட்டுள்ளது என அறிந்து கொண்டேன்.	☐
2.	நான் இவ்வாய்வில் தன்னிச்சையாக தான் பங்கேற்கிறேன். எந்த காரணத்தினாலோ எந்த கட்டத்திலும், எந்த சட்ட சிக்கலுக்கும் உட்படாமல் நான் இவ்வாய்வில் இருந்து விலகி கொள்ளலாம் என்றும் அறிந்து கொண்டேன்.	☐
3.	இந்த ஆய்வு சம்பந்தமாகவோ, இதை சார்ந்து மேலும் ஆய்வு மேற்காள்ளும் போதும் இந்த ஆய்வில் பங்குபெறும் மருத்துவர் என்னுடைய மருத்துவ அறிக்கைகளை பார்ப்பதற்கு என் அனுமதி தேவையில்லை என அறிந்து கொள்கிறேன். நான் ஆய்வில் இருந்து விலகிக் கொண்டாலும் இது பொருந்தும் என அறிகிறேன்.	☐
4.	இந்த ஆய்வின் மூலம் கிடைக்கும் தகவலையோ, முடிவையோ பயன்படுத்திக் கொள்ள மறுக்க மாட்டேன்.	☐
5.	இந்த ஆய்வில் பங்கு கொள்ள ஒப்புக் கொள்கிறேன் எனக்கு கொடுக்கப்பட்டஅறிவுரைகளின் படி நடந்து கொள்வதுடன், ஆய்வை மேற்கொள்ளும் மருத்துவ அணிக்கு உண்மையுடன் இருப்பேன் என்று உறுதியளிக்கிறேன். என் உடல் நலம் பாதிக்கப்பட்டாலோ, அல்லது எதிர்பாராத, வழக்கத்திற்கு மாறான நோய்குறி தென்பட்டாலோ உடனே இதை மருத்துவ அணியிடம் தெரிவிப்பேன் என உறுதி அளிக்றேன்.	☐

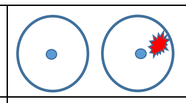
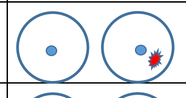
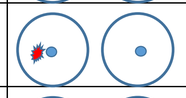
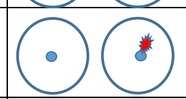
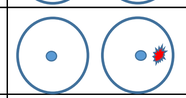
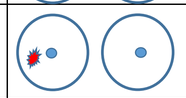
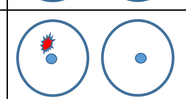
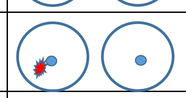
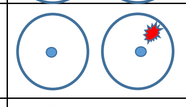
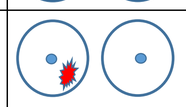
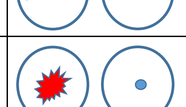
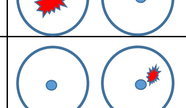
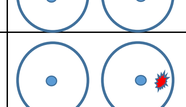
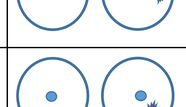
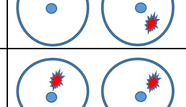
பங்கேற்பவரின் கையொப்பம் / ..... இடம் .....
கட்டைவிரல் ரேகை
பங்கேற்பவரின் பெயர் மற்றும் விலாசம் .....
ஆய்வாளரின் கையொப்பம் /..... இடம் .....
ஆய்வாளரின் பெயர் .....
மையம் .....
கல்வியறிவு இல்லாதவற்கு (கைரேகை வைத்தவர்களுக்கு) இது அவசியம் தேவை
சாட்சியின் கையொப்பம் /..... இடம் .....
பெயர் மற்றும் விலாசம் ....

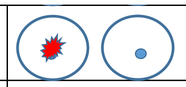
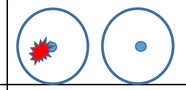
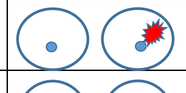
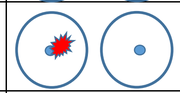
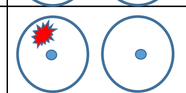
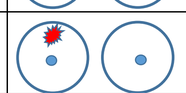
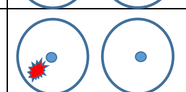
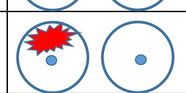
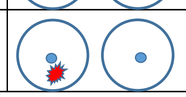
A COMPARATIVE STUDY BETWEEN FNAC, TRUCUT BIOPSY AND HISTOPATHOLOGICAL EXAMINATION IN BREAST LUMPS IN TVMCH

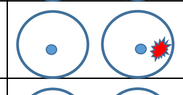
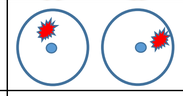
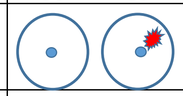
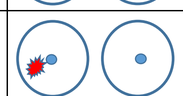
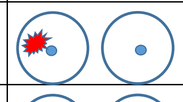
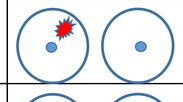
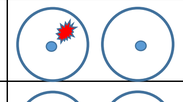
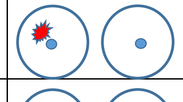
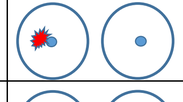
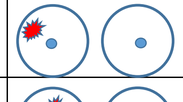
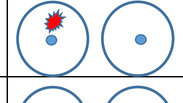
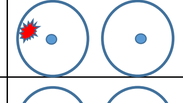
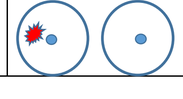
INVESTIGATOR - Dr.K.K.ARUNRAJA

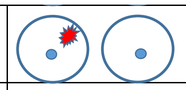
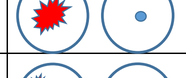
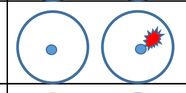
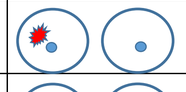
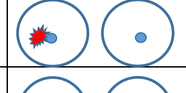
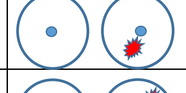
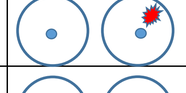
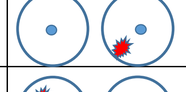
GUIDE - Prof. Dr. ALEX EDWARDS

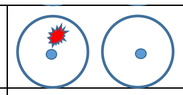
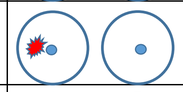
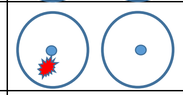
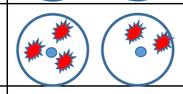
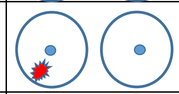
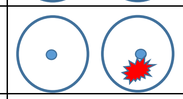
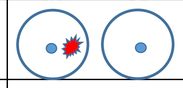
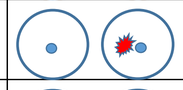
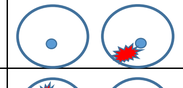
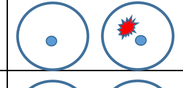
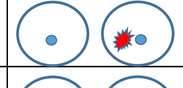
CASE NO.	NAME	AGE	SEX	IP NO.	COMPLAINTS	FAMILY H/O BREAST LUMP	AGE AT MENARCHE	NO. OF CHILDREN (IF MARRIED)	OCP USAGE	EXAMINATION OF BREAST	QUADRANT	CLINICAL DIAGNOSIS	FNAC REPORT	TRUCUT REPORT	SURGERY DONE	HPE REPORT
1	Deivanai	47	F	60623	lump right breast	no	15	2	NO		UPPER OUTER	carcinoma right breast	S/O MALIGNANCY	IDC (INVASIVE DUCTAL CARCINOMA)	RIGHT MRM	IDC nos (INVASIVE DUCTAL CARCINOMA NOS TYPE)
2	esakkiammal	19	F	64202	lump left breast	no	13	0	NO		UPPER OUTER	FIBROADENOMA left breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
3	SHANMUGASUNDARI	13	F	63212	lump left breast	no	11	0	NO		UPPER OUTER	FIBROADENOMA left breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
4	sheeba	29	F	63814	lump right breast	no	14	0	NO		LOWER OUTER	FIBROADENOMA right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
5	saraswathi	40	F	61911	lump right breast	no	15	2	NO		UPPER INNER	FIBROADENOMA right breast	S/O FIBROADENOMA	FIBROCYSTIC DISEASE	EXCISION BIOPSY	fibrocystic disease
6	malayammal	45	F	64584	lump left breast	no	13	3	NO		LOWER INNER	carcinoma left breast	s/o malignancy	IDC	left MRM	DUCTAL CARCINOMA - ATYPICAL MEDULLARY TYPE
7	maari	30	F	65640	lump left breast	no	12	1	NO		UPPER OUTER	lump - lef breast	s/o benign proliferative breast disease	INCONCLUSIVE	lumpectomy	FIBROCYSTIC DISEASE WITH FLORID ADENOSIS
8	sundhari	59	F	65485	lump right breast	no	15	4	NO		UPPER OUTER	carcinoma right breast	s/o malignancy	IDC	right MRM	IDC nos
9	asar fathima	49	F	62851	lump right breast	no	13	2	NO		LOWER OUTER	lump- left breast	ECD with few suspecious clusters	invasive ductal carcinoma	left MRM	invasive papillary carcinoma of breast
10	sivanthikani	37	F	60614	lump left breast	no	12	1	NO		UPPER OUTER	carcinoma left breast	s/o malignancy	IDC	right MRM	IDC nos
11	vijayakumari	29	F	57961	lump right breast	no	14	1	NO		UPPER OUTER	fibroadenoma	S/O FIBROADENOMA	FIBROADENOSIS	EXCISION BIOPSY	fibroadenosis
12	rajeshwari	26	F	65630	lump both breast	no	15	0	NO		UPPER OUTER	b/l fibroadenoma	S/O FIBROADENOMA	FIBROADENOSIS	B/L excision biopsy	fibroadenosis
13	kannimariyal	28	F	65760	lump left breast	no	14	0	NO		UPPER OUTER	fibroadenoma	S/O FIBROADENOMA	FIBROADENOMA	left lumpectomy	fibroadenoma
14	subbulakshmi	40	F	69961	lump right breast	no	16	2	NO		UPPER OUTER	carcinoma right breast	s/o malignancy	IDC	RIGHT MRM	IDC NOS TYPE

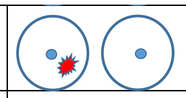
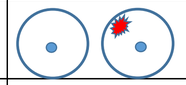
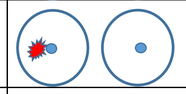
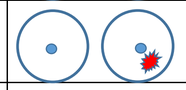
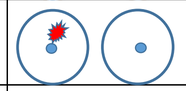
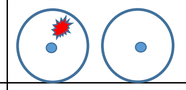
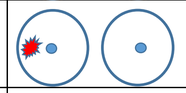
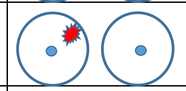
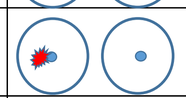
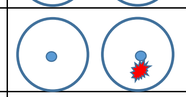
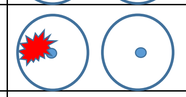
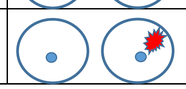
15	guruvammal	48	F	67150	lump left breast	no	14	2	NO		UPPER OUTER	carcinoma left breast	s/o malignancy	IDC	left MRM	IDC NOS TYPE
16	sandhiya	20	F	67185	lump left breast	no	12	0	NO		LOWER OUTER	fibroadenoma	s/o fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma
17	chermakanni	34	F	66406	lump right breast	no	13	1	NO		LOWER OUTER	fibroadenoma	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma
18	avudaiachi	55	F	67617	lump left breast	no	16	4	NO		CENTRAL	CARCINOMA LEFT BREAST	s/o malignancy	IDC	left MRM	IDC NOS TYPE
19	selvi	40	F	67924	lump left breast	no	12	3	NO		UPPER OUTER	fibroadenoma	s/o fibroadenoma	PHYLLODES TUMOUR	excision biopsy	PHYLLODES TUMOUR
20	mariammal	37	F	65600	lump right breast	no	12	2	NO		LOWER OUTER	fibroadenoma	s/o fibroadenoma	fibroadenoma	EXCISION BIOPSY	fibroadenoma
21	velthai	25	F	69705	lump right breast	no	14	1	NO		upper inner	fibroadenoma	s/o fibroadenoma	fibroadenoma	EXCISION BIOPSY	fibroadenoma
22	thamarai	45	F	66958	lump right breast	no	13	2	NO		lower outer	fibroadenoma	S/O FIBROCYSTIC DISEASE	FIBROCYSTIC DISEASE	EXCISION BIOPSY	fibrocystic DISEASE
23	sundari	38	F	70032	lump left breast	no	12	2	NO		upper outer	fibroadenoma	s/o fibroadenoma	fibroadenoma	EXCISION BIOPSY	fibroadenoma
24	ebenezar	50	M	66663	lump right breast	no	NA	NA	NA		LOWER OUTER	carcinoma right breast	s/o malignancy	IDC	RIGHT MRM	IDC
25	chandra	40	F	70006	lump right breast	no	15	3	NO		UPPER OUTER	carcinoma right breast	benign proliferative breast disease	IDC	RIGHT MRM	ductolobular carcinoma
26	selvam	48	F	70373	lump right breast	no	16	2	NO		CENTRAL	carcinoma right breast	S/O MALIGNANCY	IDC	RIGHT MRM	IDC NOS TYPE
27	krishnaveni	34	F	71595	lump left breast	no	12	1	NO		UPPER OUTER	fibroadenoma	S/O FIBROADENOMA	FIBROADENOMA	lumpectomy left breast	FIBROADENOMA
28	saroja	50	F	71386	lump left breast	no	13	2	NO		LOWER OUTER	fibroadenoma	S/O FIBROCYSTIC DISEASE	FIBROCYSTIC DISEASE	EXCISION BIOPSY	fibrocystic disease
29	kala	21	F	76130	lump left breast	no	14	1	NO		LOWER OUTER	fibroadenoma	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma
30	maharani	21	F	72171	B/L breast lumps	no	12	1	NO		UPPER OUTER QUADRANT, OUTE	b/l fibroadenoma	fibroadenoma - both breast	FIBROADENOMA	EXCISION BIOPSY	both breast fibroadenoma

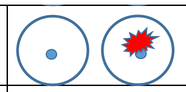
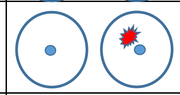
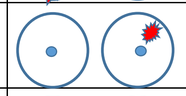
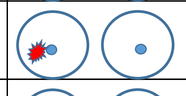
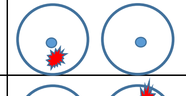
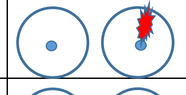
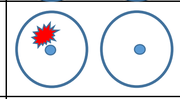
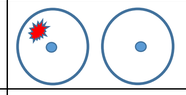
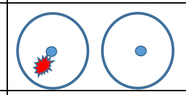
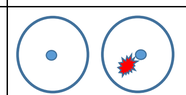
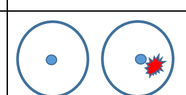
31	thangathai	50	F	70094	lump right breast	no	13	4	NO		CENTRAL	carcinoma right breast	S/O MALIGNANCY	IDC	RIGHT MRM	IDC NOS TYPE
32	madathiammal	65	F	72226	lump right breast	no	14	5	NO		CENTRAL	carcinoma right breast	S/O MALIGNANCY	IDC	RIGHT MRM	IDC NOS TYPE
33	bhuvaneshwari	42	F	75610	lump left breast	no	15	2	NO		UPPER OUTER	fibroadenoma	s/o fibrocystic disease	FIBROCYSTIC DISEASE	EXCISION BIOPSY	fibrocystic disease with epitheliosis
34	aishwarya	21	F	75591	lump left breast	no	12	0	NO		LOWER OUTER	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma
35	petchiammal	19	F	75424	lump right breast	no	11	0	NO		UPPER OUTER	fibroadenoma	s/o ductal hyperplasia without atypia	fibroadenois	EXCISION BIOPSY	fibroadenois
36	muthammal	70	F	75427	lump right breast	no	12	5	NO		CENTRAL	carcinoma right breast	smear positive for malignancy	IDC	RIGHT MRM	invasive ductal carcinoma - atypical medullary type
37	aalwar	31	F	76453	lump right breast	no	13	1	NO		CENTRAL	carcinoma right breast	s/o ductal carcinoma	IDC	RIGHT MRM	IDC NOS
38	thayammal	75	F	75558	lump right breast	no	12	4	NO		UPPER OUTER	carcinoma right breast	S/O MALIGNANCY	IDC	lumpectomy right breast	intracystic ductal carcinoma of breast
39	pappa	37	F	79743	lump left breast	no	14	2	NO		LOWER OUTER	fibroadenoma	FIBROADENOMA	FIBROADENOMA	lumpectomy left breast	FIBROADENOMA
40	prema	45	F	82918	lump left breast	no	11	2	NO		UPPER OUTER	carcinoma left breast	S/O MALIGNANCY	IDC	left MRM	invasive ductal carcinoma - NOS type grade 2
41	razool beevi	65	F	79063	lump right breast	no	15	4	NO		CENTRAL	phyllodes tumour	S/O phyllodes tumour	PHYLLODES TUMOUR	simple mastectomy	malignant phyllodes tumour
42	sudali	39	F	78598	lump right breast	no	12	2	NO		UPPER INNER	carcinoma right breast	S/O MALIGNANCY	s/o ductal carcinoma	RIGHT MRM	IDC NOS TYPE
43	nagachdurvedi	22	F	81027	lump right breast	no	11	0	NO		UPPER OUTER	fibroadenoma	benign proliferative breast disease	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma
44	muthulakshmi	48	F	80583	lump right breast	no	13	2	NO		UPPER OUTER	carcinoma right breast	invasive ductal carcinoma	IDC	RIGHT MRM	invasive ductal carcinoma - atypical medullary type
45	nilavathi	54	F	82610	lump right breast	no	14	2	NO		UPPER INNER	carcinoma right breast	s/o malignancy	IDC	RIGHT MRM	invasive ductal carcinoma - NOS type grade 3
46	subbammal	54	F	82628	lump right breast	no	15	3	NO		LOWER OUTER	carcinoma right breast	s/o malignancy	IDC	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2
47	rajeshwari	40	F	83376	lump with fungating ulcer c	no	16	2	NO		UPPER OUTER	fungating breast mass - ? Phyllodes tumour	phyllodes tumour	PHYLLODES TUMOR	toilet mastectomy	phylloides tuomur with significant ductal hyperplasia
48	ramalakshmi	44	F	83779	lump right breast	no	14	2	NO		LOWER INNER	carcinoma left breast	s/o malignancy	tiny fragments s/o malignancy	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2

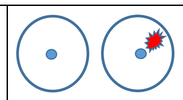
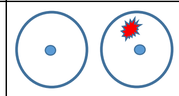
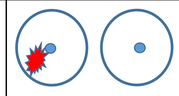
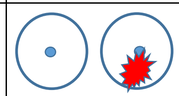
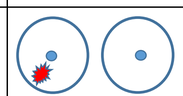
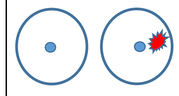
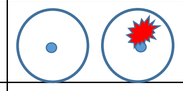
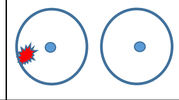
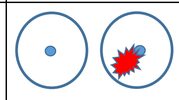
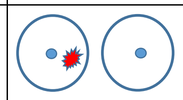
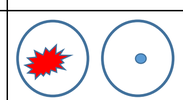
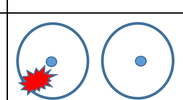
49	lakshmi	26	F	82997	lump right breast	no	11	1	NO		UPPER OUTER	carcinoma right breast	hemorrhagic smear	s/o malignancy - high grade ductal carcinoma	LEFT MRM	IDC NOS TYPE
50	kalaivani	19	F	84895	lump left breast	no	15	0	NO		LOWER OUTER	fibroadenoma	FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma
51	chandralekha	18	F	83976	lump both breast	no	16	0	NO		UPPER OUTER	b/l fibroadenoma	s/o fibroadenoma	FIBROADENOMA	B/L excision biopsy	fibroadenoma
52	annakili	60	F	85200	lump left breast	no	11	3	NO		UPPER OUTER	carcinoma left breast	s/o malignancy	s/o malignancy	left MRM	invasive ductal carcinoma breast - NOS typer grade 2
53	subbaih	61	M	82665	lump left breast	no	NA	NA	NA		CENTRAL	carcinoma left breast	positive for malignancy	s/o ductal carcinoma	left MRM	invasive ductal carcinoma - NOS type grade 2,
54	muthulakshmi	45	F	86653	lump right breast	no	13	2	NO		LOWER OUTER	carcinoma right breast	s/o malignancy	s/o ductal carcinoma	right MRM	IDC NOS TYPE
55	chithambaram	84	F	88442	lump right breast	no	14	5	NO		CENTRAL	carcinoma right breast	s/o malignancy	invasive ductal carcinoma of breast	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2
56	saraswathy	50	F	88392	lump right breast	no	13	2	NO		LOWER OUTER	carcinoma right breast	S/O MALIGNANCY	tiny fragment s/o malignancy	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2
57	kuppumani	57	F	87457	lump right breast	no	15	3	NO		UPPER OUTER	carcinoma right breast	S/O MALIGNANCY	IDC	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2
58	pappammal	50	F	88839	lump right breast	no	12	4	NO		UPPER INNER	carcinoma right breast	S/O MALIGNANCY	tiny fragment s/o malignancy	RIGHT MRM	medullary carcinoma with florid fibrocystic change
59	nesamani	54	F	90079	lump left breast	no	16	3	NO		UPPER INNER	carcinoma left breast	S/O MALIGNANCY	invasive ductal carcinoma	LEFT MRM	IDC NOS TYPE
60	velladurai	70	M	90433	lump right breast	no	NA	NA	NA		UPPER OUTER	carcinoma right breast	S/O MALIGNANCY	invasive ductal carcinoma	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2
61	avudaiammal	70	F	90494	lump right breast	no	15	4	NO		CENTRAL	carcinoma right breast	S/O MALIGNANCY	invasive ductal carcinoma breast -NOS type	RIGHT MRM	invasive ductal carcinoma - NOS type grade 2
62	rajammal	72	F	90780	lump right breast	no	11	3	NO		UPPER OUTER	carcinoma right breast	S/O MALIGNANCY	invasive ductal carcinoma breast -NOS type	RIGHT MRM	invasive ductal carcinoma breast - NOS type grade 2
63	muthulakshmi	40	F	91903	lump right breast	no	14	2	NO		UPPER INNER	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma
64	subbulakshmi	60	F	91902	lump right breast	no	12	3	NO		UPPER OUTER	carcinoma right breast	s/o malignancy	IDC	RIGHT MRM	invasive mammary carcinoma grade 2
65	thangaselvi	37	F	93911	lump right breast	no	12	1	NO		UPPER OUTER	fibroadenoma	fibrocystic disease	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma with apocrine changes

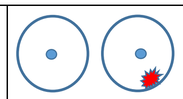
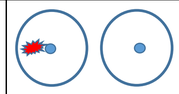
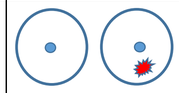
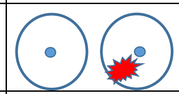
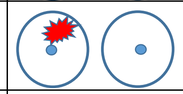
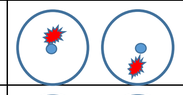
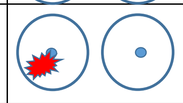
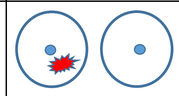
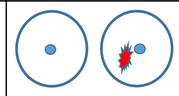
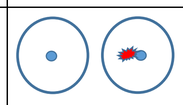
66	thahira banu	45	F	5756	lump right breast	no	13	2	NO		UPPER INNER	carcinoma right breast	S/O MALIGNANCY	invasive ductal carcinoma	RIGHT MRM	invasive ductal carcinoma grade 2
67	padma	22	F	94869	lump right breast	no	12	1	NO		upper inner	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma with apocrine metaplasia
68	sivagami	21	F	94882	lump right breast	no	11	0	NO		UPPER OUTER	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma with usual epithelial hyperplasia
69	sundharam	48	F	94774	lump right breast	no	14	2	NO		CENTRAL	carcinoma right breast	s/o malignancy	IDC	RIGHT MRM	invasive ductal carcinoma , lymphovascular invasion
70	achiammal	55	F	625	lump left breast	no	13	3	NO		UPPER INNER	carcinoma left breast	s/o malignancy	IDC	left MRM	invasive ductal carrcinoma-NOS type grade 2
71	avudaiyachi	50	F	95907	lump left breast	no	15	2	NO		CENTRAL	carcinoma left breast	s/o malignancy	invasive ductal carcinoma	left MRM	invasive ductal carrcinoma-NOS type grade 2
72	murugeshwari	30	F	450	lump right breast	no	11	1	NO		UPPER INNER	fibroadenoma	benign proliferative breast disease	FIBROADENOMA	lumpectomy right breast	fibroadenoma with benign phyllodes component
73	thangaselvi	30	F	16893	lump right breast	no	16	0	NO		LOWER OUTER	lump right breast	atypical ductal hyperplasia	invasive mammary carcinoma	RIGHT MRM	invasive mammry carcinoma
74	kosalai	59	F	1360	lump right breast	no	12	2	NO		CENTRAL	carcinoma right breast	s/o malignancy	S/O MALIGNANCY	RIGHT MRM	invasive mammry carcinoma
75	petchiammal	18	F	30148	lump right breast	no	13	0	NO		UPPER OUTER	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma
76	stella roselin	60	F	28	lump left breast	no	14	3	NO		UPPER OUTER	carcinoma left breast	s/o malignancy	invasive ductal carcinoma	left MRM	invasive ductal carrcinoma-NOS type grade 2
77	esakkiammal	35	F	4247	lump right breast	no	15	2	NO		UPPER OUTER	fibroadenoma	FIBROADENOMA	FIBROADENOMA	excision biposy	adenomyoepithelioma
78	kallathy	16	F	4703	lump right breast	no	16	0	NO		LOWER OUTER	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma with usual epithelial hyperplasia
79	peratchi	18	F	4741	lump left breast	no	12	0	NO		LOWER INNER	fibroadenoma	fibroadenoma	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma with cystic changes
80	rajaprabha	22	F	5695	lump left breast	no	14	0	NO		UPPER OUTER	fibroadenoma	fibroadenoma	PHYLLODES TUMOUR	EXCISION BIOPSY	BENIGN PHYLLODES TUMOR
81	iyyammal	48	F	365	lump left breast	no	15	2	NO		LOWER INNER	carcinoma left breast	s/o malignancy	IDC	wide local excision with left axillarry dissection	invasive ductal carcinoma grade 1 with extensive DCIS component with central comedo necrosis- high grade DCIS
82	krishnammal	60	F	5025	lump right breast	no	12	4	NO		UPPER OUTER	carcinoma right breast	s/o malignancy - possibly ductal ca breast grade 2	IDC	RIGHT MRM	invasive ductal carcinoma
83	ponnaiammal	29	F	7792	lump left breast	no	12	0	NO		UPPER OUTER	left fibroadnoma	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with cystic change

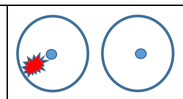
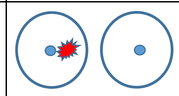
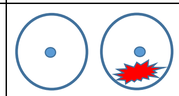
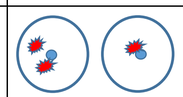
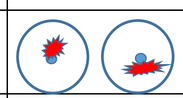
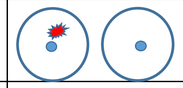
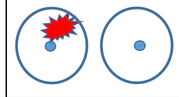
84	rajalakshmi	50	F	7741	lump right breast	no	11	3	NO		UPPER INNER	carcinoma right breast	S/O MALIGNANCY	IDC	RIGHT MRM	IDC NOS TYPE
85	krishnammal	60	F	4431	lump right breast	no	15	3	NO		UPPER OUTER	carcinoma right breast	s/o malignancy possibly ductal carcinoma grade 1	DUCTAL CARCINOMA	RIGHT MRM	PAPPILLARY carcinoma with invasion with extensive DCIS
86	MUTHUKUMARI	34	F	9248	lump right breast	no	14	2	NO		LOWER OUTER	fibroadenoma	fibroadenoma	fibroadenoma	EXCISION BIOPSY	fibradenoma with usual epithelial hp and benign phyllodes component.
87	selvam	22	F	9487	multiple lumps both breast	no	15	0	NO		UPPER OUTER , UPPER INNER, LO	multiple bilateral fibroadenoma	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma
88	gowshal fathima	18	F	9100	lump left breast	no	16	0	NO		LOWER OUTER	left fibroadnoma	fibroadenoma	FIBROADENOMA	excision bipopsy	fibroadenoma
89	thangaselvi	30	F	8091	lump right breast	no	11	1	NO		UPPER INNER	carcinoma right breast	fibroadenoma	FIBROADENOMA	RIGHT MRM	invasive ductal carcinoma NOS type grade 2 with DCIS component
90	rajammal	50	F	9876	lump right breast	no	11	2	NO		LOWER OUTER	carcinoma right breast	S/O MALIGNANCY	invasive ductal carcinoma NOS type 2	RIGHT MRM	invasive ductal carcinoma NOS type grade 2 with DCIS component
91	saraswathy	47	F	6574	lump left breast	no	12	2	NO		LOWER INNER	carcinoma left breast	S/O MALIGNANCY	invasive ductal carcinoma NOS type 2	left mrm	invasive ductal carcinoma NOS type grade 2
92	selvam	22	F	9487	lump left breast	no	13	0	NO		LOWER INNER	FIBROADENOMA left breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with ususal epithelial hyperplasia
93	marialmachi	35	F	9511	lump right breast	no	15	3	NO		LOWER INNER	FIBROADENOMA right breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with focal epithelial hyperplasia and fibrocystic change
94	jeyalakshhmi	39	F	10023	lump left breast	no	14	1	NO		LOWER INNER	FIBROADENOMA left breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with cystic changes
95	amutha	38	F	10977	lump left breast	no	11	1	NO		LOWER INNER	FIBROADENOMA left breast	fibroadenoma	FIBROCYSTIC DISEASE	lumpectomy	fibrocystic diaease with focal epithelial hyperplasia
96	petchiammal	60	F	5089	lump left breast	no	14	4	NO		LOWER INNER	carcinoma left breast	lobular carcinoma left breast	LOBULAR CARCINOMA	left MRM	invasive lobular caricinoma
97	thirumalilakshmi	19	F	111658	lump right breast	no	15	0	NO		UPPER OUTER	FIBROADENOMA right breast	fibroadenoma	FIBROCYSTIC DISEASE	excision biopsy	fibrocystic disease
98	mariammal	51	F	12741	lump left breast	no	14	3	NO		UPPER INNER	carcinoma left breast	S/O MALIGNANCY	invasive ductal carcinoma	left mrm	invasive ductal carcinoma NOS type grade 2
99	thangamani	70	F	12328	lump left breast	no	13	4	NO		LOWER INNER	carcinoma left breast	S/O MALIGNANCY	invasive ductal carcinoma	left mrm	invasive ductal carcinoma NOS type grade 2
100	karthika	20	F	13785	lump left breast	no	14	0	NO		UPPER OUTER	FIBROADENOMA left breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma
101	pappa	40	F	12607	lump right breast	no	13	2	NO		LOWER OUTER	FIBROADENOMA right breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with prominent apocrine metaplasia

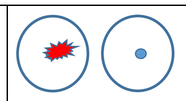
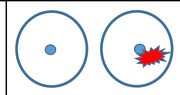
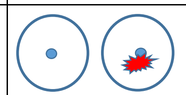
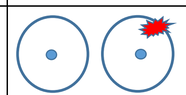
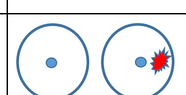
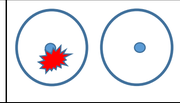
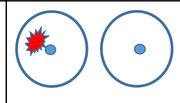
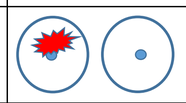
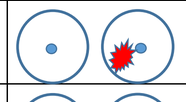
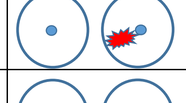
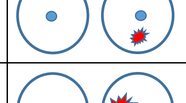
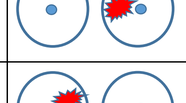
102	gomathi	52	F	12679	lump right breast	no	14	3	NO		LOWER INNER	carcinoma right breast	ductal carcinoma of breast	IDC	RIGHT MRM	ductal carcinoma in situ with comedo, solid and cribriform pattern
103	saroja	65	F	12636	lump left breast	no	12	3	NO		UPPER INNER	carcinoma left breast	ductal carcinoma grade 2	IDC	left MRM	invasive ductal carcinoa NOS grade2
104	kala	49	F	11056	lump right breast	no	11	2	NO		UPPER OUTER	FIBROADENOMA right breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with benign phyllodes component
105	madathi	52	F	13576	lump left breast	no	15	4	NO		UPPER OUTER	carcinoma left breast	ductal carcinoma grade 2	IDC	left MRM	atypical medullary carcinoma grade 3
106	vazhaiammal	59	F	7810	lump left breast	no	13	3	NO		LOWER OUTER	carcinoma left breast	S/O MALIGNANCY	IDC	left MRM	invasive ductal carcinoma
107	thangarani	42	F	14783	lump right breast	no	14	2	NO		UPPER INNER	fibroadenoma	fibroadenoma right breast	FIBROADENOMA	excision biopsy	fibroadenoma with benign phyllodes component
108	iyyammal	37	F	14965	lump right breast	no	12	1	NO		UPPER OUTER	FIBROADENOMA right breast	fibroadenoma	FIBROADENOMA	excision biopsy	fibroadenoma with fibrocystic changes
109	KRISHNAVENI	25	F	16458	lump right breast	no	12	0	NO		UPPER INNER	FIBROADENOMA right breast	fibroadenoma	FIBROADENOMA	excision biopsy	fibroadenoma
110	parvathy	57	F	15136	lump right breast	no	14	3	NO		UPPER OUTER	carcinoma right breast	ductal carcinoma of breast	IDC	right MRM	infiltrating ductal carcinoma of breast
111	thirumalaiammal	75	F	13846	lump left breast	NO	15	4	NO		UPPER OUTER	carcinoma left breast	ductal carcinoma of breast	IDC	left MRM	intracystic papillary carcinoma of breast
112	neela	54	F	13843	lump right breast	no	12	2	NO		UPPER INNER	carcinoma left breast	S/O MALIGNANCY	IDC	left MRM	invasive carcinoma of breast
113	SUBBULAKSHMI	25	F	17756	lump right breast	no	11	0	NO		CENTRAL	fibroadenoma right breast	fibroadenoma	FIBROADENOMA	excision biopsy	fibroadenoma with ususal epithelial hyperplasia
114	sivasankari	18	F	18223	lump left breast	no	13	0	NO		LOWER INNER	fibroadenoma left breast	fibroadenoma	FIBROADENOMA	lumpectomy	fibroadenoma with apocrine metaplasia and usual ductal hyperplasia
115	anandha selvi	43	F	17197	lump right breast	no	11	3	NO		UPPER OUTER	giant fibroadenoma of right breast	fibroadenoma with cystic changes	PHYLLODES TUMOUR	excision biopsy	BENIGN PHYLLODES TUMOR
116	iyyammal	33	F	17056	lump left breast	no	12	2	NO		LOWER INNER	fibrodenoma left breast	epitheliosis	epitheliosis	excision biopsy	epitheliosis
117	muneeswari	29	F	16834	lump left breast	no	14	1	NO		UPPER OUTER	mastitis	acute mastitis / infected fibrocystic disease	INCONCLUSIVE	lumpectomy	chronic granulomatous mastitis
118	esakkiammal	55	F	17793	lump left breast	no	15	3	NO		LOWER OUTER	carcinoma left breast	ductal carcinoma in situ	invasive ductal carcinoma of breast	left MRM	IDC NOS TYPE
119	thirumalai nambi	68	M	19624	lump left breast	no	NA	NA	NA		UPPER OUTER	carcinoma left breast	ductal carcinoma of breast	suspicious of malignancy	LEFT MRM	IDC NOS TYPE

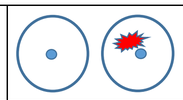
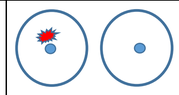
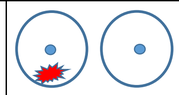
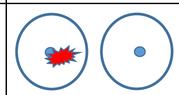
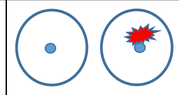
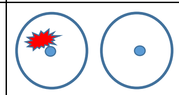
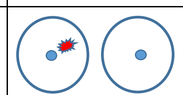
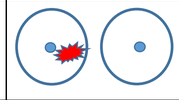
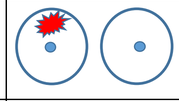
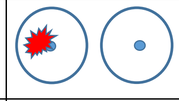
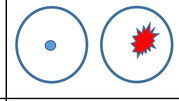
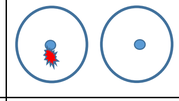
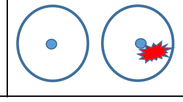
120	thangamani	50	F	18710	lump right breast	no	14	3	NO		CENTRAL	carcinoma of right breast	S/O MALIGNANCY	IDC	left MRM	invasive Ductal carcinoma - NOS typr
121	esaivani	31	F	21625	Lump left breast	no	15	2	NO		UPPER INNER	mastitis left breast	granulomatous mastitis	suspicious of malignancy	left MRM	invasive ductal carcinoma
122	selvi	56	F	19956	lump right breast	no	13	3	NO		LOWER OUTER	malignant phyllodes right breasst	phyllodes tumour	fibroepithelial lesions probably phyllodes tumor	simple mastectomy	benign phyllodes tumor
123	muthulakshmi	47	F	18252	lump left breast	no	14	2	NO		UPPER OUTER	carcinoma left breast	S/O MALIGNANCY	IDC	left MRM	multifocal INVASIVE DUCTAL CARCINOMA - grade 2
124	GOMU	45	F	11907	lump right breast	no	15	3	NO		LOWER INNER	CARCINOMA RIGHT BREAST	DUCTAL CARCINOMA	IDC	RIGHT MRM	multifocal invasive ductal carcinoma - grade 2
125	lakshmi	38	F	19955	lump right breast	no	16	2	NO		UPPER OUTER	carcinoma right breast	malignancy with inflammatory and hemorrhagic degeneration	IDC	RIGHT MRM	invasive ductal carcinoma
126	subbulakshmi	47	F	18253	lump right breast	no	13	2	NO		LOWER INNER	fibroadenoma	FIBROADENOMA	FIBROADENOMA	lumpectomy	FIBROADENOMA
127	soosaiammal	49	F	19866	lump left breast	no	13	2	NO		UPPER OUTER	carcinoma right breast	florid atypical hyperplasia	IDC	left MRM	invasive ductal carcinoma - grade 2
128	asha	33	F	23206	lump right breast	no	12	1	NO		UPPER OUTER	FIBROADENOMA RIGHT BREAST	fibroadenoma with cystic changes	FIBROADENOMA	excision biopsy	fibroadenoma with apocrine metaPLASIA
129	subbammal	54	F	22090	lump right breast	no	14	2	NO		UPPER OUTER	carcinoma right breast	ductal carcinoma of breast	IDC	RIGHT MRM	invasive ductal carcinoma NOS grade 3
130	malai alagu	32	F	26281	lump left breast	YES	15	1	YES		UPPER OUTER	carcinoma left breast	suggestive of malignancy	invasive ductal carcinoma breast -NOS type grade 3	left mrm	IDC NOS TYPE
131	jothi	34	F	28602	lump right breast	no	15	2	NO		LOWER OUTER	FIBROADENOMA right breast	FIBROADENOMA	FIBROADENOMA	excision biopsy	fibroadenoma
132	kalyani	50	F	26921	lump left breast	no	13	3	NO		CENTRAL	carcinoma left breast	ductal carcinoma	IDC	left MRM	invasive Ductal carcinoma NOS
133	MUTHULAKSHMI	46	F	28910	lump left breast	no	15	2	NO		LOWER INNER	carcinoma left breast	suggestive of malignancy	IDC	left MRM	invasive ductal carcinoma NOS type - grade 2
134	bhavani	15	F	29824	lump left breast	no	15	0	NO		LOWER OUTER	fibroadenoma left breast	FIBROADENOMA	FIBROADENOMA	excision biopsy	fibroadenoma
135	petchiammal	46	F	86019	bilateral breast lump	nnn	113	2	NO		UPPER OUTER	bilateral fibroadenoma	cystic lesion of both breast	FIBROCYSTIC DISEASE	excision biopsy	Fibrocystic disease with moderate to severe epitheliosis

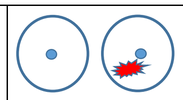
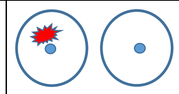
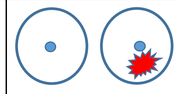
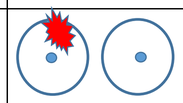
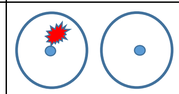
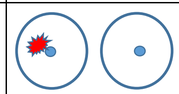
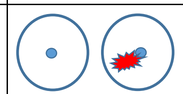
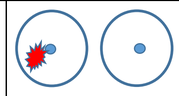
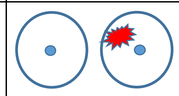
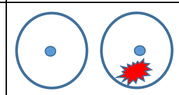
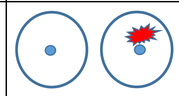
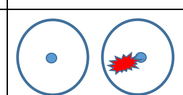
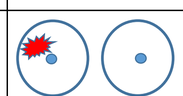
136	suchithra	21	F	32774	lump left breast	no	13	0	NO		UPPER OUTER	fibroadenoma left breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma - pericanalicular type
137	ponselvi	35	F	321153	lump left breast	non	12	2	NO		UPPER INNER	fibroadenoma left breast	fibroadenoma with cystic changes	fibroadenoma	excision biopsy	fibroadenoma with usual ductal hyperplasia with cystic changes
138	bakeeral banu	45	F	33383	lump right breast	ono	14	2	NO		LOWER OUTER	carcinoma right breast	atypical ductal hyperplasia	INVASIVE DUCTAL CARCINOMA	left MRM	invasive ductal carcinoma with areas showing extensive DCIS component
139	shanthi	40	F	31522	lump left breast	n	12	3	NO		LOWER INNER	carcinoma left breast	suggestive of malignancy	IDC	left MRM	INVASIVE DUCTAL CARcinoma NOS type - grade 2
140	maheswari	35	F	31446	lump right breast	no	11	2	NO		LOWER OUTER	FIBROADENOMA right breast	beningn proliferative breast disease	fibroadenoma	excision biopsy	fibroadenoma with benign phyllodes component
141	Lakshmi	65	F	33651	lump left breast	no	13	4	NO		LOWER OUTER	carcinoma left breast	S/O MALIGNANCY	IDC	left MRM	invasive ductal carcinoma breast NOS type - grade 2
142	nandhini	22	F	32425	lump left breast	no	14	0	NO		UPPER OUTER	fibroadenoma left breast	cystic lesion of both breast	fibroadenoma	excision biopsy	fibroadenoma with ususal ductal hyperplasia with cystic changes
143	Mariammal	55	F	28935	lump left breast	no	14	3	NO		UPPER OUTER	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left MRM	INVASIVE dUCTAL CARCINOMA - NOS type
144	prema	29	F	33641	lump right beasr	no	15	2	NO		LOWER OUTER	fibroadenoma right breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma
145	muthulakshmi	55	F	32180	lump left breast	no	14	3	NO		LOWER INNER	carcinoma left breast	suggestive of malignancy	invasive ductal carcinoma	left MRM	invasive ductal carcinoma NOS type - grade 3
146	Trisha	17	F	27222	lump right breast	no	13	0	NO		LOWER OUTER	fibroadenoma right breast	fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma with benign phyllodes component
147	santhi	38	F	30818	lump right breast	no	12	2	NO		CENTRAL	carcinoma right breast	suggestive of malignancy	invasive ductal carcinoma NOS type - GRADE 2	RIGHT MRM	IDC NOS TYPE
148	JANAKI	65	F	35574	LUMP RIGHT BREAST	no	11	3	NO		LOWER OUTER	Carcinoma right breast	suggestive of malignancy	invasive ductal carcinoma NOS type	RIGHT MRM	IDC NOS TYPE
149	grace	68	F	38894	LUMP LEFT BREAST	no	14	3	NO		UPPER OUTER	CARCINOMA LEFT BREAST	INVASIVE LOBULAR CARCINOMA	s/o malignancy	left MRM	INVASIVE LOBULAR CARCINOMA

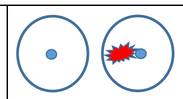
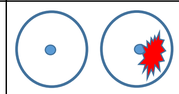
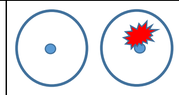
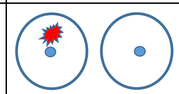
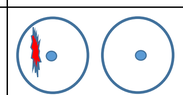
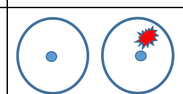
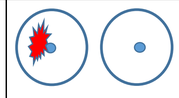
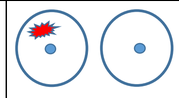
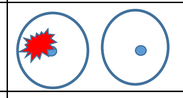
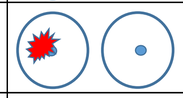
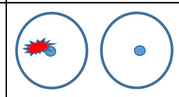
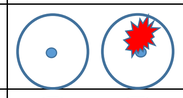
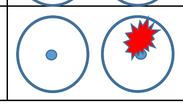
150	LAKSHMANAN	69	M	40776	LUMP LEFT BREAST	NO	NA	NA	NA		LOWER OUTER	CARCINOMA left breast	S/O malignancy	s/o malignancy	left MRM	INVASIVE DUCTAL CARCINOMA
151	AROKIYAM	21	F	44303	LUMP RIGHT BREAST	NO	15	0	NO		UPPER OUTER	FIBROADENOMA RIGHT BREAST	FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA RIGHT BREAST
152	SIVASAKTHI	28	F	44395	LEFT LUMP BREAST	no	11	1	NO		LOWER OUTER	FIBROADENOMA left breast	FIBROADENOMA	FIBROADENOMA	EXCISION BIOSPY	FIBROADENOMA LEFT BREAST
153	CHENDAMMAL	66	F	43221	LUMP RIGHT BREAST	no	13	3	NO		CENTRAL	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	right MRM	IDC NOS TYPE
154	SHANMUGASUNDARI	50	F	44693	LUMP RIGHT BREAST	no	15	3	NO		LOWER INNER	FIBROADENOMA LEFT BREAST	fibrocystic disease	fibrocystic disease	EXCISION BIOPSY	INFLAMMED FIBROCYSTIC LESION - BREAST
155	ESAKKIAMMAL	40	F	43414	LUMP RIGHT BREAST	no	12	3	YES		UPPER INNER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA NOS - GRADE 2
156	PAVITHRA	19	F	45319	LUMP BOTH BREAST	no	12	O	NO		UPPER OUTER, LOWER OUTER	FIBROADENOMA BOTH BREAST	SHOWS ONLY MATURE ADIPOCYTES	FIBROADENOMA	EXCISION BIOPSY	INTRACANALICULAR FIBROADENOMA
157	SANKARAMMAL	48	F	45297	LUMP RIGHT BREAST	no	13	1	NO		LOWER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - GRADE 2
158	PAPPA	50	F	41770	LUMP RIGHT BREAST	no	11	2	NO		LOWER INNER	FIBROCYSTIC DISEASE OF RIGHT BREAST	S/O GRANULOMATOUS MASTITIS	INCONCLUSIVE	EXCISION BIOPSY	ORGANIZING BREAST ABSCESS
159	SARMILA	19	F	45063	LUMP LEFT BREAST	no	15	0	NO		LOWER INNER	FIBROADENOMA left breast	FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	INTRACANALICULAR FIBROADENOMA
160	MEENAKSHI	42	F	45294	LUMP LEFT BREAST	no	16	2	NO		LOWER INNER	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	INTRACANALICULAR FIBROADENOMA
161	POOLTHAI	45	F	45527	lump left breast	no	14	2	NO		UPPER OUTER	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE
162	KRISHNAVENI	23	F	46543	LUMP LEFT BREAST	no	13	1	NO		UPPER INNER	FIBROADENOMA left breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE
163	MUTHUSELVI	37	F	46091	LUMP RIGHT BREAST	no	14	1	NO		UPPER OUTER	FIBROADENOMA right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE

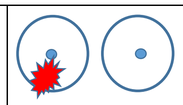
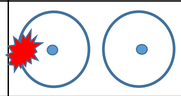
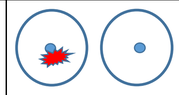
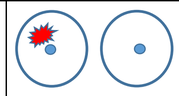
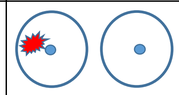
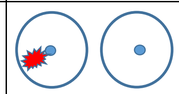
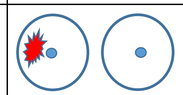
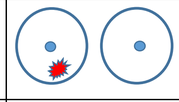
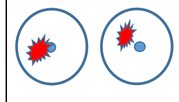
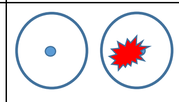
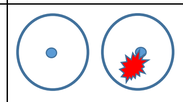
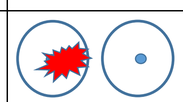
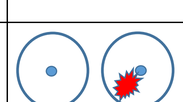
164	SERMAKANI	45	F	46199	LUMP RIGHT BREEAST	no	13	2	NO		LOWER OUTER	CARCINOMA RIGHT BREAST	S/O FIBROCYSTIC DISEASE & DUCTAL HYPERPLASIA	invasive ductal carcinoma - NOS type grade 2	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS GRADE 2
165	AVUDAIAMMAL	70	F	46565	LUMP RIGHT BERAST	no	13	4	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	invasive ductal carcinoma - NOS type grade 2	RIGHT MRM	INVASIVE DUCTAL CARCINOMA BREAST - NOS TYPE
166	MUPPIDATHY	48	F	48321	LUMP RIGHT BREAST	NO	12	2	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	invasive ductal carcinoma - NOS type grade 2	RIGHT MRM	IDC NOS TYPE
167	rajeshwari	28	F	48791	LUMP LEFT BREAST	no	14	1	NO		LOWER INNER	PHYLLODES TUMOUR	S/O PHYLLODES TUMOUR	PHYLLODES	WIDE local excision	BENIGN PHYLLODES TUMOUR
168	GEETHA	33	F	49080	LUMP BOTH BREAST	no	13	1	NO		UPPER OUTER	FIBROADENOMA BOTH BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
169	KANI	25	F	48882	LUMP BOTH BREAST	no	13	0	NO		CENTRAL	FIBROADENOMA BOTH BREAST	FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA WITH HYALINISATION
170	PRIYA	39	F	48322	LUMP RIGHT BREAST	no	14	1	NO		UPPER INNER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA IIN A BACKGROUND OF FIBROCYSTIC DISEASE OF BREAST
171	RAJAMMAL	55	F	47312	LUMP RIGHT BREAST	no	15	2	NO		UPPER INNER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS GRADE 2
172	SUBBULAKSHMI	60	F	49669	LUMP RIGHT BREAST	no	13	3	NO		UOOER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS GRADE 2
173	RAMANI	52	F	50391	LUMP RIGHT BREAST	no	13	1	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS GRADE 2
174	SEENIAMMAL	40	F	50393	LUMP RIGHT BREAST	no	14	2	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O DUCTAL CARCINIOMA	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA -NOS TYPE GRADE 2
175	SELVI	23	F	46174	LUMP RIGHT BREAST	no	12	0	NO		UPPER OUTER	FIBROADENOMA RIGH T BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPY	FIBROADENOMA - INTRACANALICULAR TYPE
176	MOOKAMMAL	55	F	49017	LUMP LEFT BREAST	no	12	2	NO		LOWER INNER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left mrm	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
177	SUBALAKSHMI	19	F	52375	LUMP RIGHT BREAST	no	14	0	NO		UPPER INNER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - INTRACANALICULAR TYPE
178	PETCHIAMMAL	67	F	50614	LUMP LEFT BREAST	no	15	4	NO		UPPER OUTER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	DUCTAL CARCINOMA LEFT BREAST	left mrm	INVASIVE DUCTAL CARCINOMA

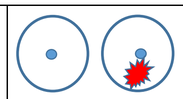
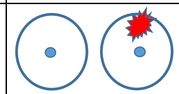
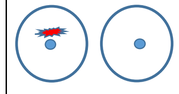
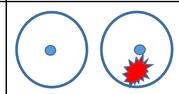
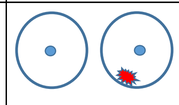
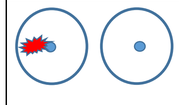
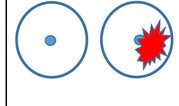
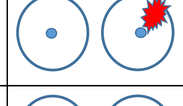
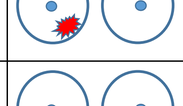
179	VASANTHI	42	F	51872	LUMP RIGHT BREAST	no	13	1	NO		CENTRAL	Carcinoma right breast	s/o malignancy	invasive ductal carcinoma	RIGHT MRM	invasive ductal carcinoma
180	sarasa	55	F	53683	LUMP LEFT BREAST	no	15	3	NO		LOWER OUTER	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left mrm	INVASIVE DUCTAL CARCINOMA
181	MARIYA PUSHPAM	15	F	53345	LUMP LEFT BREAST	no	14	0	NO		LOWER INNER	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCSION BIOPSY	FIBROADENOMA
182	SOUNDHARAM	74	F	53373	LUMP LEFT BREAST	no	11	3	NO		UPPER OUTER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left mrm	INVASIVE DUCTAL CARCINOMA
183	NAGARANI	19	F	55058	LUMP LEFT BREAST	no	12	0	NO		UPPER OUTER	FIBROADENOMA left breast	FIBROADENOMA	FIBROADENOMA	EXCISION OF BIOPSY	FIBROADENOMA
184	MARIYAMMAL	80	F	54425	LUMP LEFT BREAST	no	13	5	NO		LOWER OUTER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	DUCTAL CARCINOMA	left mrm	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
185	PAPATHY	33	F	55767	LUMP RIGHT BREAST	no	14	2	NO		UPPER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE
186	amutha	41	F	55292	LUMP RIGHT BREAST	no	15	1	NO		CENTRAL	CARCINOMA RIGHT BREAST	atypical ductal hyperplasia	PHYLLODES TUMOUR	SIMPLE MASTECTOMY	PHYLLODES TUMOUR
187	PACKIYARANI	21	F	57406	LUMP RIGHT BREAST	no	14	0	NO		UPPER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE
188	FATHIMA	48	F	55261	LUMP RIGHT BREAST	no	13	2	NO		CENTRAL	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	RIGHT MRM	INAVASIVE DUCTAL CARCINOMA
189	PAULKANI	60	F	59088	lump left breast	no	12	3	NO		LOWER INNER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left MRM	IDC NOS TYPE
190	MUNIYAMMAL	65	F	56717	lump left breast	no	12	2	NO		LOWER INNER	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left MRM	IDC NOS TYPE
191	MANIMEGALAI	41	F	59059	lump left breast	no	12	2	NO		LOWER OUTER	FIBROADENOMA left breast	S/O FIBROADENOMA	FIBROADDENOMA	EXCISION BIOPSY	FIBROADENOMA
192	MARIAMMAL	52	F	58348	lump left breast	no	14	2	NO		UPPER INNER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left MRM	IDC NOS TYPE
193	ABHISHA	21	F	57834	LUMP BOTH BREAST	no	13	0	NO		UPPER OUTER	PHYLLODES TUMOUR	S/O FIBROADENOMA	FIBROADENOMA	BILATERAL SIMPLE MASTECTOMY	FIBROADENOMA - BOTH BREAST

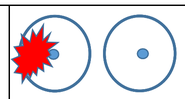
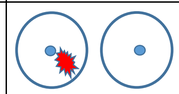
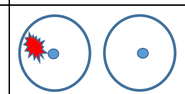
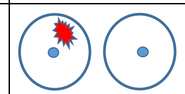
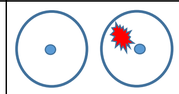
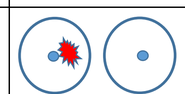
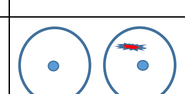
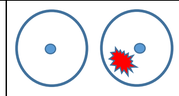
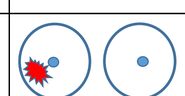
194	POOLTHAI	38	F	58592	lump left breast	no	14	2	NO		UPPER INNER	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	PHYLLODES TUMOUR	EXCISION BIOPSY	BENIGN PHYLLODES TUMOUR
195	MADHUBALA	20	F	64326	LUMP RIGHT BREAST	no	15	0	NO		UPPER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	INTRACANALICULAR FIBROADENOMA
196	JAMELA	50	F	63253	LUMP RIGHT BREAST	no	13	3	NO		UPPER INNER	CARCINOMA RIGHT BREAST	S/O DUCTAL CARCINOMA GRADE 1	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA- NOS -GRADE 2
197	USHA	47	F	66332	LUMP RIGHT BREAST	nn	14	1	NO		CENTRAL	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	RIGHT MRM	INVASIVE DUCTAL CARCINOMA- NOS -GRADE 2
198	esakkiammal	19	F	66373	lump left breast	no	15	0	NO		UPPER OUTER	FIBROCYSTIC DISEASE LEFT BREAST	S/ O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA WITH CO-EXISTING FIBROCYSTIC LESION
199	MARIAMMAL	42	F	67186	LUMP RIGHT BREAST	no	13	2	NO		UPPER OUTER	FIBROADENOMA right breast	S/O FIBROAENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE
200	RAMUTHAI	32	F	65736	LUMP RIGHT BREAST	no	14	1	NO		UPPER INNER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	fibroadenoma	EXCISION BIOPSY	INTRACANALICULAR FIBROADENOMA
201	SAMUTHIRAKANI	58	F	69129	LUMP RIGHT BREAST	NO	13	3	NO		UPPER INNER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	invasive ductal carcinoma - NOS type grade 2	RIGHT MRM	INVASIVE DUCTAL CARCINOMA- NOS -GRADE 2
202	MARIAMMAL	45	F	66117	LUMP RIGHT BREAST	no	15	2	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
203	VELLADURACHI	45	F	67881	LUMP RIGHT BREAST	ono	13	3	NO		CENTRAL	CARCINOMA RIGHT BREAST	DUCTAL CARCINOMA	IDC	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
204	SHANTHI	22	F	71109	LUMP RIGHT BREAST	no	13	0	NO		CENTRAL	PHYLLODES TUMOUR	S/O FIBROADENOMA	FIBROADENOMA	LUMPECTOMY	FIBROADENOMA - MIXED TYPE
205	SORNAVALLI	38	F	71123	LUMP LEFT BREAST	no	14	2	NO		CENTRAL	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left mrm	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
206	MUTHULAKSHMI	45	F	71409	LUMP RIGHT BREAST	NO	12	2	NO		CENTRAL	FIBROADENOMA right breast	FIBROADENOMA	FIBROADENOMA	LUMPECTOMY	FIBROADENOMA - MIXED TYPE
207	MUTHULAKSHMI	33	F	69674	lump left breast	NO	12	1	YES		LOWER OUTER	carcinoma left breast	INVASIVE ductal CARCINOMA GRADE 2	IDC	right MRM	INVASIVE DUCTAL CARCINOMA- NOS TYPE GRADE 2

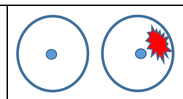
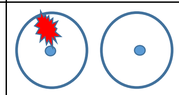
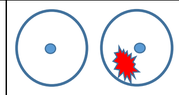
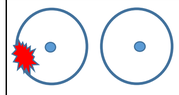
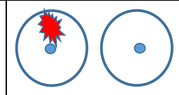
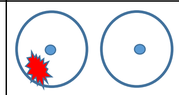
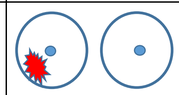
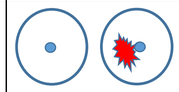
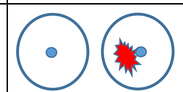
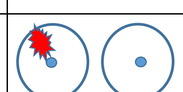
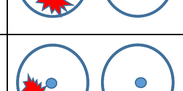
208	KAMALADEVI	42	F	71328	LUMP LEFT BREAST	no	11	1	NO		LOWER INNER	fibroadenoma left breast	FIBROCYSTIC DISEASE	NO EVIDENCE OF MALIGNANCY	excision biopsy	sclerosing adenosis
209	sivalakshmi	57	F	69347	LUMP RIGHT BREAST	NO	14	2	NO		UPPER OUTER	FIBROCYSTIC DISEASE OF RIGHT BREAST	CYSTIC LESION of BREAST	invasive ductal carcinoma	right MRM	INTRACYSTIC PAPILLARY FOCAL IDC
210	LOGAMMAL	66	F	69912	lump left breast	no	12	3	NO		LOWER OUTER	CARCINOMA OF LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left MRM	INVASIVE DUCTAL CARCINOMA NOS TYPE - GRADE 2
211	PUSHPALATHA	54	F	70057	LUMP RIGHT BREAST	no	11	2	NO		UPPER INNER	carcinoma of right breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	right MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
212	GOWRI	36	F	71641	LUMP RIGHT BREAST	no	11	2	NO		UPPER INNER	fibroadenoma right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - INTRACANALICULAR TYPE
213	MALLIKA	35	F	75247	LUMP RIGHT BREAST	ono	13	1	NO		UPPER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	INTRACANALICULAR FIBROADENOMA
214	GANDHIMATHI	55	F	76670	LUMP LEFT BREAST	ono	12	2	NO		CENTRAL	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	left mrm	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
215	SIVALAKSHMI	57	F	69347	LUMP RIGHT BREAST	no	14	3	NO		LOWER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	RIGHT MRM	PREDOMINANTLY INTRACYSTIC PAPILLARY CARCINOMA WITH FOCAL INVASIVE ductal carcinoma NOS
216	MUTHULAKSHMI	47	F	74947	LUMP RIGHT BREAST	no	15	2	NO		UPPER INNER	FIBROADENOMA RIGHT BREAST	phyllodes tumour	PHYLLODES TUMOR	EXCISION BIOPSY	BENIGN PHYLLODES TUMOUR
217	VALLIAMMAL	39	F	74853	LUMP LEFT BREAST	no	14	1	NO		UPPER INNER	CARCINOMA LEFT BREAST	PHYLLODES TUMOR	PHYLLODES TUMOR	LEFT MRM	HIGH GRADE MALIGNANT PHYLLODES TUMOUR
218	APPURANANTHAM	53	F	76684	LUMP LEFT BREAST	no	13	3	NO		LOWER INNER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - GRADE 3	LEFT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE - GRADE 2
219	SHANMUGASUNDARI	42	F	75195	LUMP LEFT BREAST	no	11	2	NO		UPPER INNER	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	LEFT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE - GRADE 2
220	SELVI	35	F	76458	LEFT LUMP BREAST	no	12	2	NO		LOWER INNER	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	LEFT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE - GRADE 2
221	PARVATHY RANI	48	F	77668	LUMP RIGHT BREAST	no	11	2	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	RIGHT MRM	INVASIVE DUCTAL CARCINOMA NOS TYPE - GRADE 2

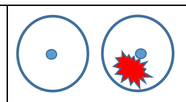
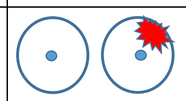
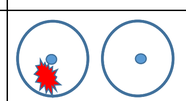
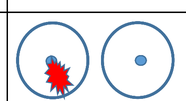
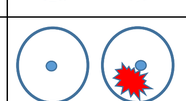
222	SELVAKANI	45	F	662/18	Lump left breast	no	13	2	NO		LOWER INNER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA	RIGHT MRM	INVASIVE DUCTAL CARCINOMA NOS TYPE - GRADE 2
223	SELVI	35	F	76458	LUMP LEFT BREAST	no	13	1	NO		LOWER OUTER	carcinoma left breast	S/O MALIGNANCY	invasive ductal carcinoma - NOS type grade 2	LEFT MRM	INVASIVE DUCTAL CARCINOMA NOS TYPE - GRADE 2
224	PARAMESHWARI	28	F	80575	lump left breast	no	14	1	NO		UPPER OUTER	fibroadenoma left breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA WITH HYALINISATION
225	PAULIN MARY	36	F	81396	LUMP RIGHT BREAST	no	15	2	NO		UPPER OUTER	FIBROADENOMA right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA WITH HYALINISATION
226	vijayakumari	65	F	88826	LUMP RIGHT BREAST	no	12	4	NO		UPPER OUTER	carcinoma left breast	S/O MALIGNANCY	invasive ductal carcinoma - NOS type grade 2	LEFT MRM	INVASIVE DUCTAL CARCINOMA NOS TYPE - GRADE 2
227	BAVANI	75	F	79979	LUMP LEFT BREAST	no	11	3	NO		UPPER OUTER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	invasive ductal carcinoma - NOS type	left MRM	INVSIVE DUCTAL CARCINOMA - NOS TYPE GRADE 3
228	BALA	53	F	83445	LUMP LEFT BREAST	no	11	2	NO		UPPER OUTER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	left MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
229	VELLIAMMAL	50	F	81431	LUMP RIGHT BREAST	no	11	3	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
230	LAKSHMI	38	F	82682	LUMP RIGHT BREAST	no	13	2	NO		UPPER OUTER	FIBROADENOMA right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	PERICANALICULAR FIBROADENOMA
231	KARPAGASELVI	31	F	79423	lump RIGHT breast	no	12	1	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	left MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
232	KALAIVANI	46	F	84800	LUMP RIGHT BREAST	no	14	2	NO		CENTRAL	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
233	RATHI	40	F	84836	LUMP RIGHT BREAST	no	15	3	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
234	lakshmiammal	72	f	81662	lump left breast	ono	12	4	NO		UPPER INNER	carcinoma left breast	grade 1 ducal carcinoma	INVASIVE DUCTAL CARCINOMA - NOS TYPE	left MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
235	saraswathi	47	f	84825	LEFT LUMP BREAST	no	11	3	NO		CENTRAL	carcinoma left breast	grade 1 ducTal carcinoma	INVASIVE DUCTAL CARCINOMA - NOS TYPE	left MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2

236	VALLIAMMAL	60	F	84083	RIGHT LUMP BREAST	no	13	3	NO		LOWER INNER	carcinoma left breast	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
237	SHANTHILAKSHMI	44	F	86630	RIGHT LUMP BREAST	no	14	2	NO		LOWER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
238	SASIKALA	20	F	85474	LUMP RIGHT BREAST	no	11	0	NO		LOWER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
239	rajeshwari	45	F	85042	LUMP RIGHT BREAST	NO	12	1	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
240	ANNAKALIYAM	59	F	87122	LUMP RIGHT BREAST	no	13	3	NO		UPPER OUTER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
241	ARULSELVI	50	F	85308	LUMP RIGHT BREAST	no	11	38	no		LOWER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
242	PONNUTHAI	70	F	86984	LUMP RIGHT BREAST	no	12	3	nos		upper outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	RIGHT MRM	INVASIVE DUCTAL CARCINOMA - NOS TYPE GRADE 2
243	SEETHADEVI	18	F	89298	LUMP RIGHT BREAST	no	11	0	nos		lower inner	fibroadenoma right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	pericanalicular fibroadenoma
244	TAMILARASI	34	F	89016	LUMP BOTH BREAST	no	14	2	nos		upper outer, upper inner	FIBROADENOMA BOTH BREAST	s/o fibroadenoma	fibroadenoma	excision biopsy	fibroadenoma - both breasts
245	mariammal	54	F	71467	LUMP LEFT BREAST	no	12	3	nos		central	CARCINOMA LEFT BREAST	S/O MALIGNACY	INVASIVE DUCTAL CARCINOMA - NOS TYPE	left mrm	IDC - NOS TYPE
246	GOMATHY	38	F	90359	LUMP LEFT BREAST	no	14	2	nos		lower inner	CARCINOMA LEFT BREAST	S/O DUCTAL CARCINOMA	EPITHELIOSIS IN THE BACKGROUND OF FIBROCYSTIC DISEASE	LEFT MRM	IDC - NOS TYPE
247	KALA	55	F	90324	LUMP RIGHT BREAST	no	12	2	nos		central	CARCINOMA RIGHT BREAST	S/O FIBROCYSTIC LESION WITH MILD ATYPIA	IDC NOS WITH DESMOPLASTIC STROMA	RIGHT MRM	IDC - NOS TYPE
248	UMAYAMMAL	55	F	75518	LUMP LEFT BREAST	no	13	4	nos		lower inner	CARCINOMA left breast	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
249	SAROJA	50	F	173	LUMP LEFT BREAST	no	13	2	nos		upper outer, lower outer	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE

250	NANDINI	14	F	799	LUMP LEFT BREAST	no	13	0	nos		lower inner	PHYLLODES TUMOUR	S/O FIBROADENOMA	FIBROADENOMA	LUMPECTOMY	FIBROADENOMA
251	MARIAMMAL	47	F	2045	LUMP RIGHT BREAST	no	13	2	nos		central	CARCINOMA RIGHT BREAST	S/O MAILGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
252	SANKARAMMAL	65	F	1527	LUMP RIGHT BREAST	no	15	3	nos		central	CARCINOMA RIGHT BREAST	FLORID DUCTAL EPITHELIOSIS	IDC NOS	RIGHT MRM	IDC - NOS TYPE
253	MARIAMMAL	38	F	1410	LUMP LEFT BREAST	no	116	2	nos		upper outer	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
254	shanmugathai	31	f	2216	lump right breasr	no	13	2	nos		upper outer	fibroadenoma right breast	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
255	MAHESHWARI	50	F	1749	LUMP LEFT BREAST	no	13	3	nos		outer inner	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
256	PARVATHY	50	F	91049	LUMP RIGHT BREAST	NO	12	2	nos		upper outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
257	HARISELVI	42	F	3744	LUMP LEFT BREAST	NO	12	1	nos		lower outer	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	LUMPTECTOMY	FIBROADENOMA
258	MUTHAMMAL	68	F	5081	LUMP RIGHT BREAST	no	12	3	nos		upper outer	CARCINNOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
259	MARIAMMAL MURUGAN	41	F	4724	LUMP LEFT BREAST	NO	14	2	YES		upper inner	CARCINOMA LEFT BREAST	S/O BENIGN CYSTIC LESION	IDC NOS	left mrm	IDC - NOS TYPE
260	KALYANI	54	F	4279	LUMP LEFT BREAST	NO	15	3	no		upper outer\	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
261	THANGAM	65	F	6924	LUMP RIGHT BREAST	no	13	4	no		lower inner	CARCINOMA RIGHT BREAST	suspecious of MEDULLARY CARCINOMA OF BREAST	S/O MALIGNANCY	RIGHT MRM	medullary carcinoma with florid fibrocystic change
262	AMUDHAVALLI	21	F	7769	LUMP RIGHT BREAST	no	13	0	nos		lower outet	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	LUMPTECTOMY	FIBROADENOMA

263	PAPPA	65	F	7247	LUMP RIGHT BREAST	no	12	2	nos		upper outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
264	PACKIYAM	71	F	5162	LUMP RIGHT BREAST	ono	15	3	nos		lower inner	CARCINOMA LEFT BREAST	S/O DUCTAL CARCINOMA	IDC NOS	left mrm	IDC - NOS TYPE
265	MUTHU	19	F	8722	LUMP LEFT BREAST	no	15	0	nos		upper outer	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
266	MARIAMMAL	50	F	8785	LUMP RIGHT BREAST	no	13	3	no		UPPER INNER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
267	rajeshwari	33	F	8696	LUMP LEFT BREAST	no	12	2	no		upper inner	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
268	NAGAMMAL	25	F	10203	LUMP RIGHT BREAST	no	11	1	no		upper inner	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	fibroadenoma - pericanalicular type
269	SATHYALAKSHMI	24	F	10323	LUMP LEFT BREAST	no	12	0	no		upper inner	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA -MIXED TYPE
270	SANGEETHA	14	F	10618	LUMP LEFT BREAST	no	13	0	no		lower inner	FIBROADENOMA LEFT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	JUVENILE FIBROADENOMA
271	MUTHAMMAL	68	F	5081	LUMP RIGHT BREAST	no	14	3	no		lower outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
272	mari	45	f	5764	LUMP RIGHT BREAST	no	1	3	no		lower inner	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
273	ESAKKIAMMAL	65	F	11540	LUMP LEFT BREAST	no	14	4	no		upper inner	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
274	KANJANA	47	F	46467	LUMP LEFT BREAST	no	11	2	no		lower outer	PHYLLODES TUMOR LEFT BREAST	S/O PHYLLODES TUMOUR	PHYLLODES TUMOR	SIMPLE MASTECTOMY	BORDERLINE PHYLLODES - WITH LOW MALIGNANT POTENTIAL
275	SUBBULAXMI	58	F	47118	LUMP RIGHT BREAST	no	13	2	no		central	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE

276	SHANMUGATHAI	62	F	48090	LUMP LEFT BREAST	no	14	3	no		upper outer	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	LEFT MRM	IDC - NOS TYPE
278	MUTHULAKSHMI	21	F	48700	LUMP RIGHT BREAST	no	13	0	no		upper outer	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
279	PREMA	63	F	49318	LU MP LEFT BREAST	no	13	3	no		lower inner	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
280	MARIAMMAL	49	F	47346	LUMP RIGHT BREAST	no	13	3	no		lower outer	CARCINOMA RIGHT BREAST	S/O DUCTAL HYPERPLASIA	DUCTAL CARCINOMA	RIGHT MRM	ATYPICAL DUCTAL CARCINOMA
281	CHANDRA	24	F	49059	LUMP RIGHT BREAST	no	12	0	no		upper outer	FIBROCYSTIC DISEASE OF RIGH BREAST	S/O FIBROADENOSIS	FIBROCYSTIC DISEASE	LUMPECTOMY	CHRONIC PERIDUCTAL MASTITIS
282	AYESHA BEEVI	45	F	49970	LUMP RIGHT BREAST	no	12	4	no		lower outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
283	GURUVAMMAL	52	F	49683	LUMP RIGHT BREAST	no	13	3	no		lower outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
284	VELAMMAL	80	F	47343	lump left breast	no	12	1	no		lower inner	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	left mrm	IDC - NOS TYPE
285	MADHUBALA	22	F	49497	lump left breast	no	15	0	no		lower inner	FIBROADENOMA left breast	S/O FIBROADENOMA	FIBROCYSTIC DISEASE	EXCISION BIOPSY	FIBROCYSTIC DISEASE -LEFT
286	JISIPRISTIN	16	F	50196	BREASTLUMP RIGHT	no	14	0	no		upper outer	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA - MIXED TYPE
287	PUSHPARANI	54	F	50428	LUMP RIGHT BREAST	no	11	4	no		lower outer	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
288	GOVINDAMMAL	65	F	17921	LUMP RIGHT BREAST	no	12	3	no		lower inner	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
289	SARADA	33	F	50561	LUMP RIGHT BREAST	no	15	1	no		lower outer	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
290	NAGOOR MEENAL	51	F	50204	LUMP RIGHT BREAST	no	15	3	no		lower inner	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE

291	POORANI	56	F	51380	LUMP LEFT BREAST	no	13	2	no		LOWER INNER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	LEFT MRM	IDC - NOS TYPE
292	VALATHY	67	F	50448	lump left breast	no	15	2	NO		UPPER OUTER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	LEFT MRM	IDC - NOS TYPE
293	RATHA	29	F	52000	LUMP RIGHT BREAST	no	13	0	NO		LOWER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA
294	subbulakshmi	52	f	52653	lump right breast	no	14	2	NO		LOWER INNER	CARCINOMA RIGHT BREAST	S/O MALIGNANCY	IDC NOS	RIGHT MRM	IDC - NOS TYPE
295	prema	63	f	49318	lump left breast	no	13	2	NO		LOWER INNER	CARCINOMA LEFT BREAST	S/O MALIGNANCY	IDC NOS	LEFT MRM	IDC - NOS TYPE
296	karupayal	21	f	53475	lump right breast	no	12	0	NO		LOWER OUTER	FIBROADENOMA RIGHT BREAST	S/O FIBROADENOMA	FIBROADENOMA	EXCISION BIOPSY	FIBROADENOMA