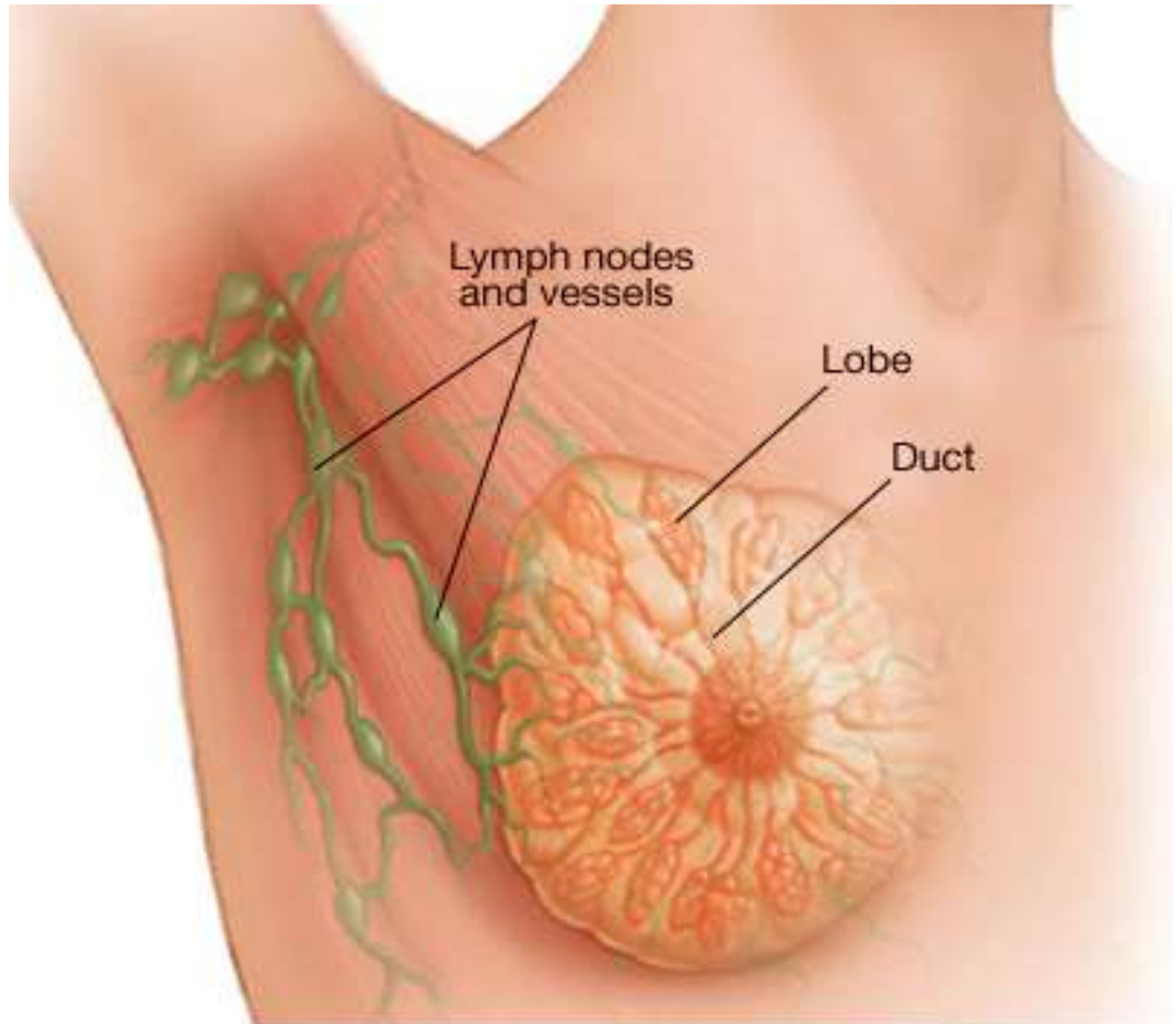




# BREAST CANCER

Ms Jyoti Dhagale  
Lecture OBG Dept  
MES CON





# INTRODUCTION-

- Breast cancer refers to group of malignant diseases that commonly occurs in female breast.



# ETIOLOGY-

- Genetic alterations
- Alteration in estradiol and progesterone



## Risk factors-

- Increased age
- Socioeconomic status
- Menstrual history
- Family history
- Obesity
- Oral contraceptive
- Hormonal replacement therapy

# STAGES-

## Stage 0

- Carcinoma in situ

## Stage I

- Tumor 2cm or less, no axillary lymph nodes metastasis.
- No evidence of distant metastasis

## Stage II

- Tumor less than 2 cm but with 1 or 3 positive lymph nodes
- Tumor 2-5 cm with or without axillary lymph node metastasis.

## Stage III

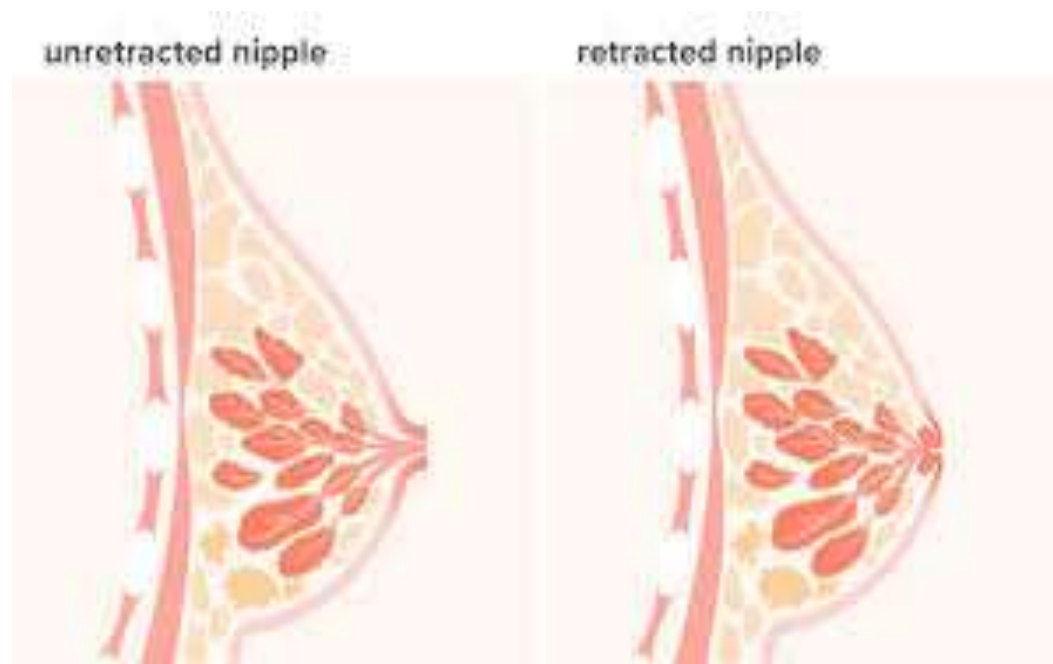
- Any size tumor with 4 or more positive axillary lymph nodes
- Inflammatory breast cancer no evidence of distant metastasis.

## Stage IV

- Any of above with distant metastasis i.e. involvement of liver, lungs, bone, brain

# CLINICAL MANIFESTATIONS-

- The mass is usually painless, nontender, hard irregular in shape and non-motile.
- Nipple discharge and retraction





- Edema
- Metastasis to skin manifested by ulcerating and fumigating lesions.
- Breast asymmetry
- Orange-peel skin



## Signs of Breast Cancer



Lumps



Nipple discharge



Dimpling



Breast or nipple pain



Nipple retraction or inversion



Redness



Changes to the skin's texture



Lymph node changes



Swelling

# TYPES

- Intraductal carcinoma
- Infiltrating ductal carcinoma
- Medullary carcinoma
- Tubular carcinoma
- Paget's disease
- Inflammatory breast cancer
- Lobular carcinoma in situ

# DIAGNOSTIC EVALUATION-

- History collection
- Screening and diagnostic methods includes: breast self examination

## Breast Self-Examination (BSE)

One of the most important ways to detect breast cancer.

**Changes to look for that are not normal for you:**

- Lump in your breasts
- Lump, hard knot, or thickening
- Unusual swelling, soreness, redness, or darkening
- Change in size or shape
- Itching or peeling of the skin
- Nipple warts or any of the nipple
- Inflammation or pulling in of the nipple or other parts of the breast
- Nipple discharge from your nipple
- Pain in one spot that does not go away
- Any other changes

**Important facts to remember:**

- Know your risks. Learn your family health history and talk to your doctor about your personal risks.
- Learn about breast cancer screening. Effective screening mammograms and tests with your doctor. When should screening start? How often? What tests are appropriate for your risk and age?
- Check your breasts at the same time each month. The best time of the month to perform your breast check is 2-3 days after your menstrual cycle ends. If you no longer have a period, choose a date each month that will be easy for you to remember.
- Examine both breasts monthly. Know how your breasts normally look and feel. Remember to look, feel, and squeeze. Examine both underarms and breasts.
- See your doctor right away if you notice any breast or underarm lumps, changes. The earlier an abnormality is detected, the more effective treatment will be.
- Signs and symptoms of breast cancer are not the same for all women. Any changes should be discussed with your doctor.
- Healthy lifestyle changes can reduce your risk. Maintain a healthy weight, limit alcohol intake, and stay physically active by adding exercise to your daily routine.

## Make Breast Examination a Health Habit

Follow these steps to examine your breasts regularly once a month.

**Look...**

Look for changes in front of the mirror:

1. Hold your arms at your sides. Facing front and sideways.
2. Hold your arms over your head, facing front and sideways.
3. Place your hands on your hips and tighten your chest muscles.
4. With your hands on your hips, move your shoulders forward.

**Feel...**

Feel for changes:

1. Lie down on your back with a folded towel or pillow under your right shoulder and one your right arm under your head.
2. Wash your middle fingers of your left hand, check your right breast.
3. Place your right, middle, and ring fingers to circles without lifting fingers off of your skin.
4. Follow an up and down pattern.
5. Feel for changes in your breast and armpit and before your collarbone.
6. Feel for changes in the area between your breast and armpit, including the armpit itself.
7. Repeat this same pattern on your left breast, using your right hand.
8. These steps may be repeated when sitting up and while bathing or showering using soapy hands.

**Squeeze...**

Squeeze to check for discharge:

1. Feel around your areola and nipple.
2. Squeeze gently to check for any discharge.

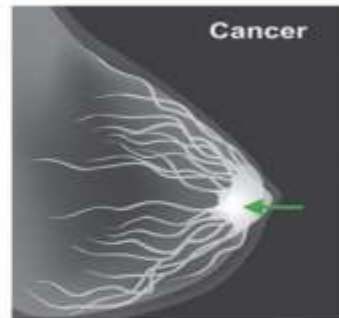
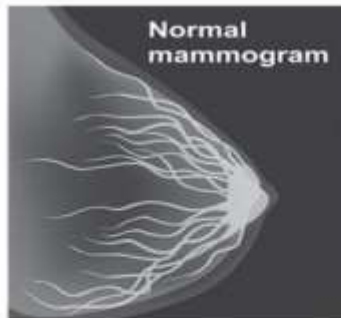
See your doctor right away to report dimpling, lumps, nipple discharge, swelling, areas, irregular shape, swelling, nipple retraction, and any other changes or abnormalities.

*Ascco* (American Society of Cancer Control) Copyright © 2012 Breast. Breast.org

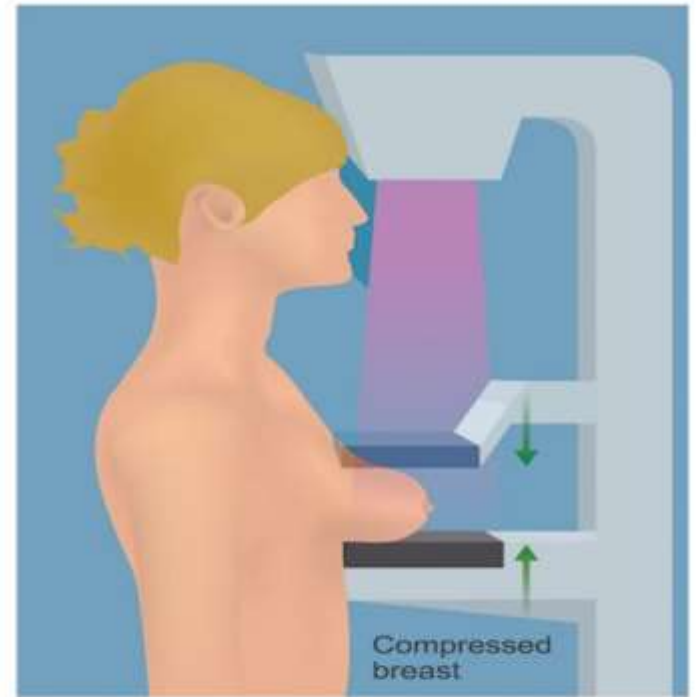
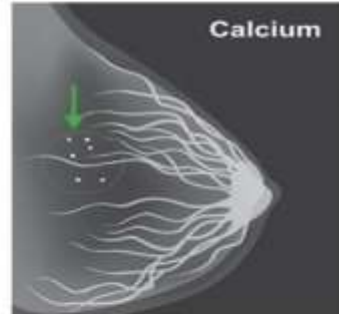


- Clinical breast examination
  - Inspection
  - Palpation
- Breast imaging
  - ❖ Mammography
  - ❖ Digital mammography
  - ❖ Ultrasonography

# MAMMOGRAPHY-



X-ray illustrate



- In mammography, each breast is compressed horizontally.
- During a screening mammogram, the breast is placed between two plastic plates.
- The plates then are briefly compressed to flatten the breast tissue.
- Two views usually are taken of each breast.



# MRI-



- Pet scan-
- Breast biopsy-
- Fine needle aspiration biopsy-

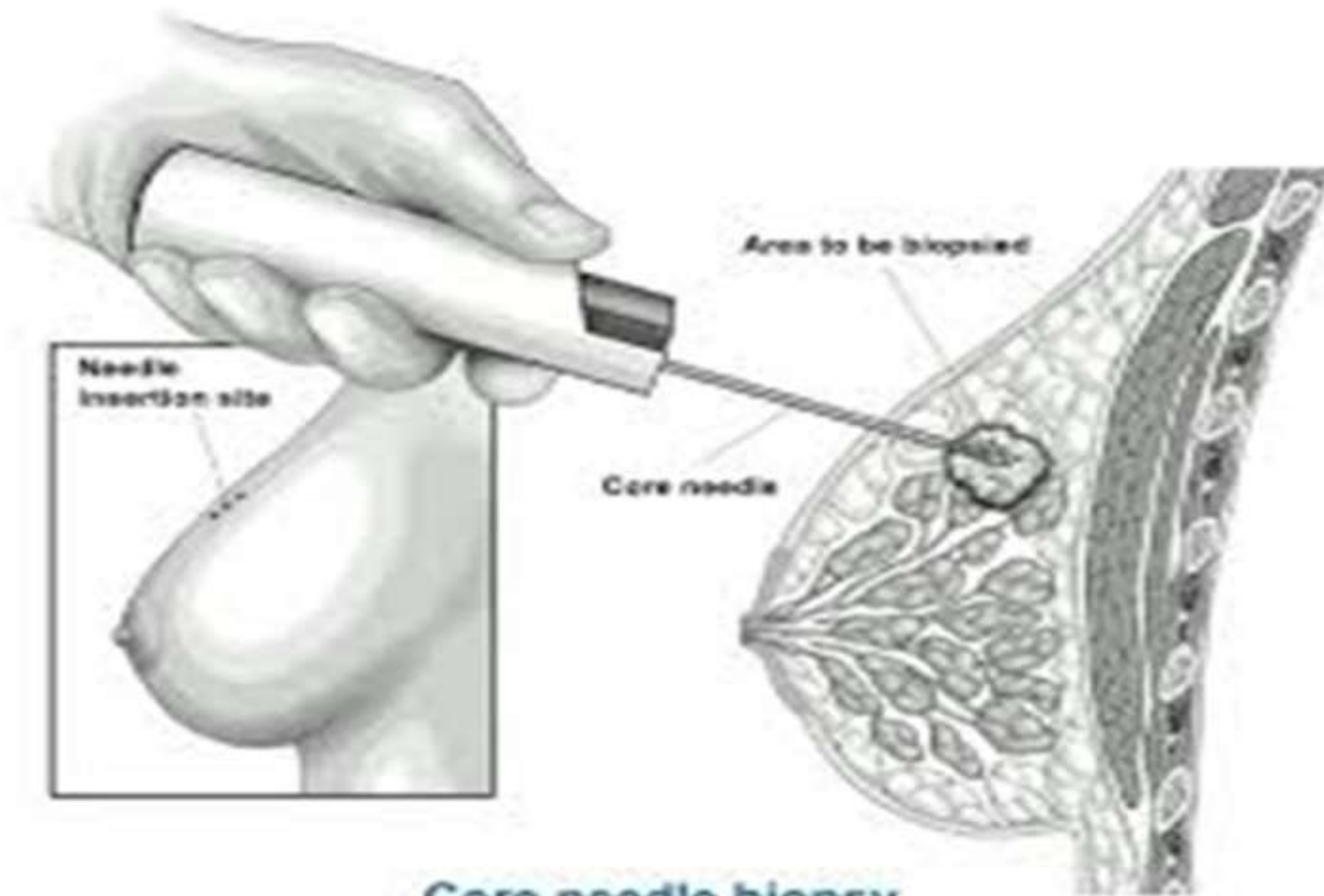
**Fine Needle Aspiration  
Cytology (FNAC)**

- e.g FNA of breast,  
thyroid, LN, Mass.



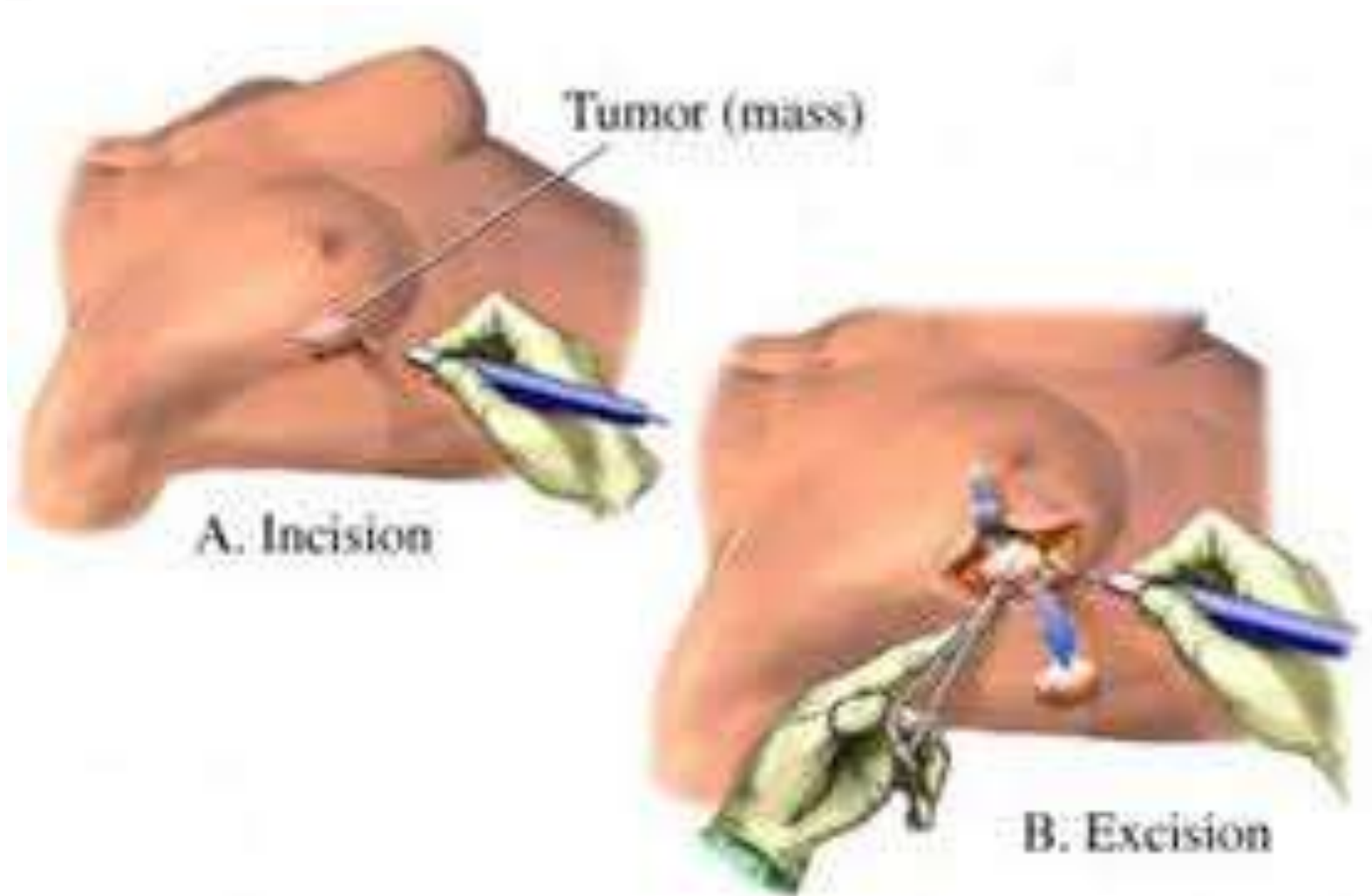


# CORE NEEDLE BIOPSY-



Core needle biopsy

# OPEN BIOPSY-





# MANAGEMENT-

## CHEMOTHERAPY-

- Main drugs used for breast cancer includes-
- Cyclophosphamide, methotrexate, 5-fluorouracil, doxorubicin, paclitaxel.
- For advance cancer, docetaxel, capecitabine, vinorelbine, fluorouracil by continuous infusion.



# ENDOCRINE THERAPY-

- Selective estrogen receptor modulators:
  - Tamoxifen
  - Raloxifene
- Aromatase inhibitors:
  - Anastrozole
  - Letrozole

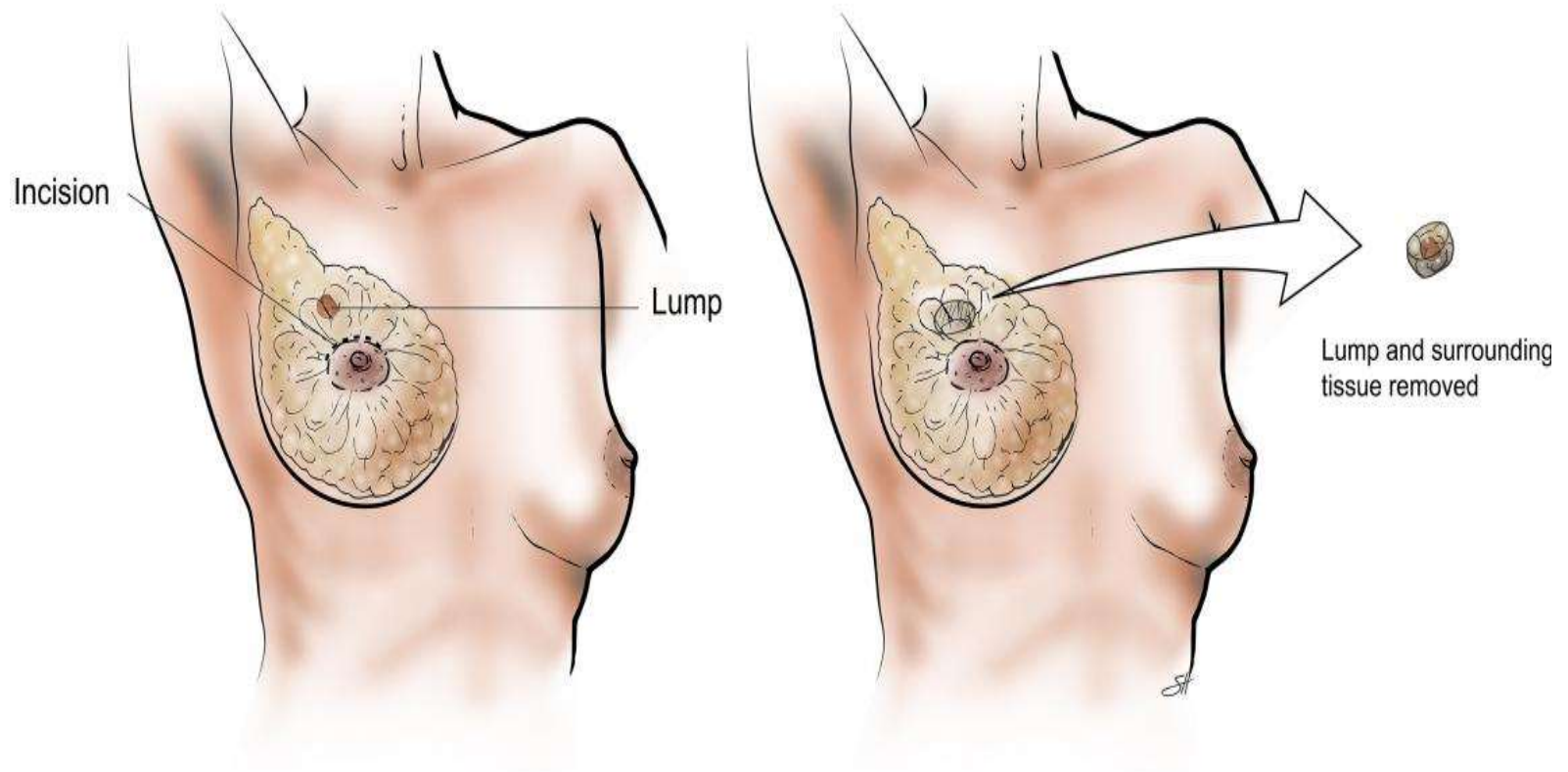


# HORMONAL THERAPY-

- It is used in advanced disease.
- Estrogen such as diethyl stilbestrol in high doses decrease endogenous estrogen production.

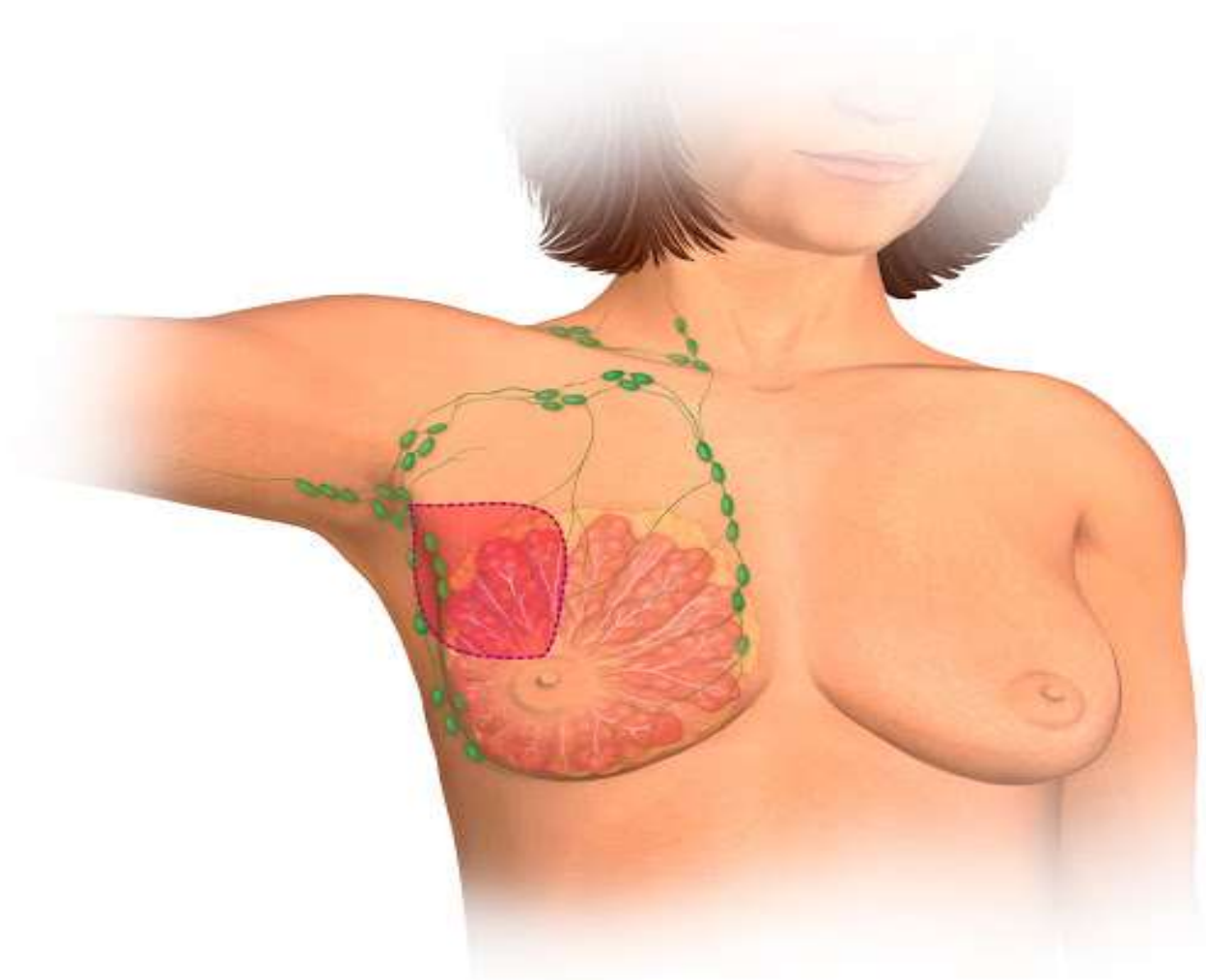
# SURGICAL MANAGEMENT-

- Lumpectomy-



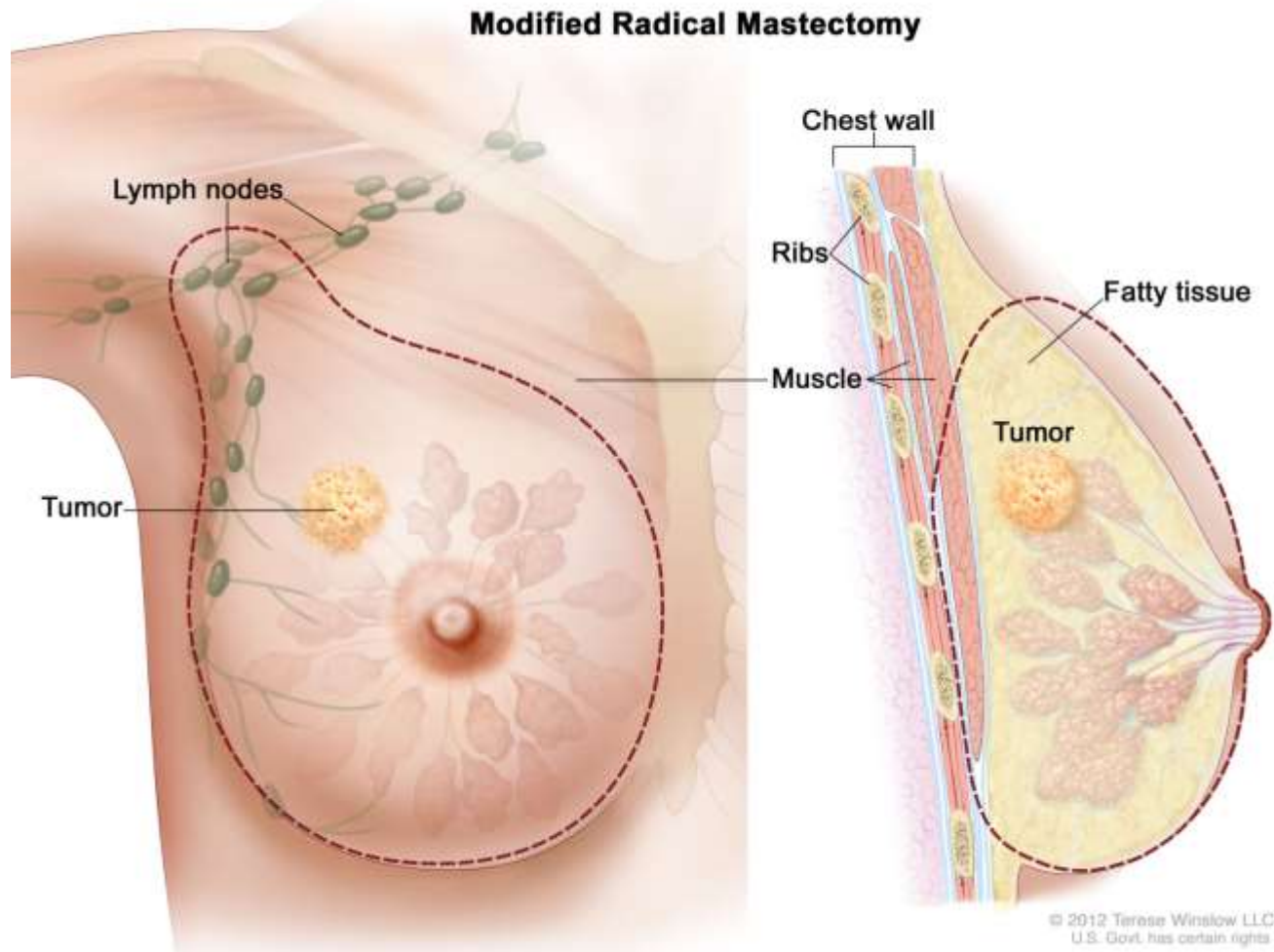


# QUADRANTECTOMY-



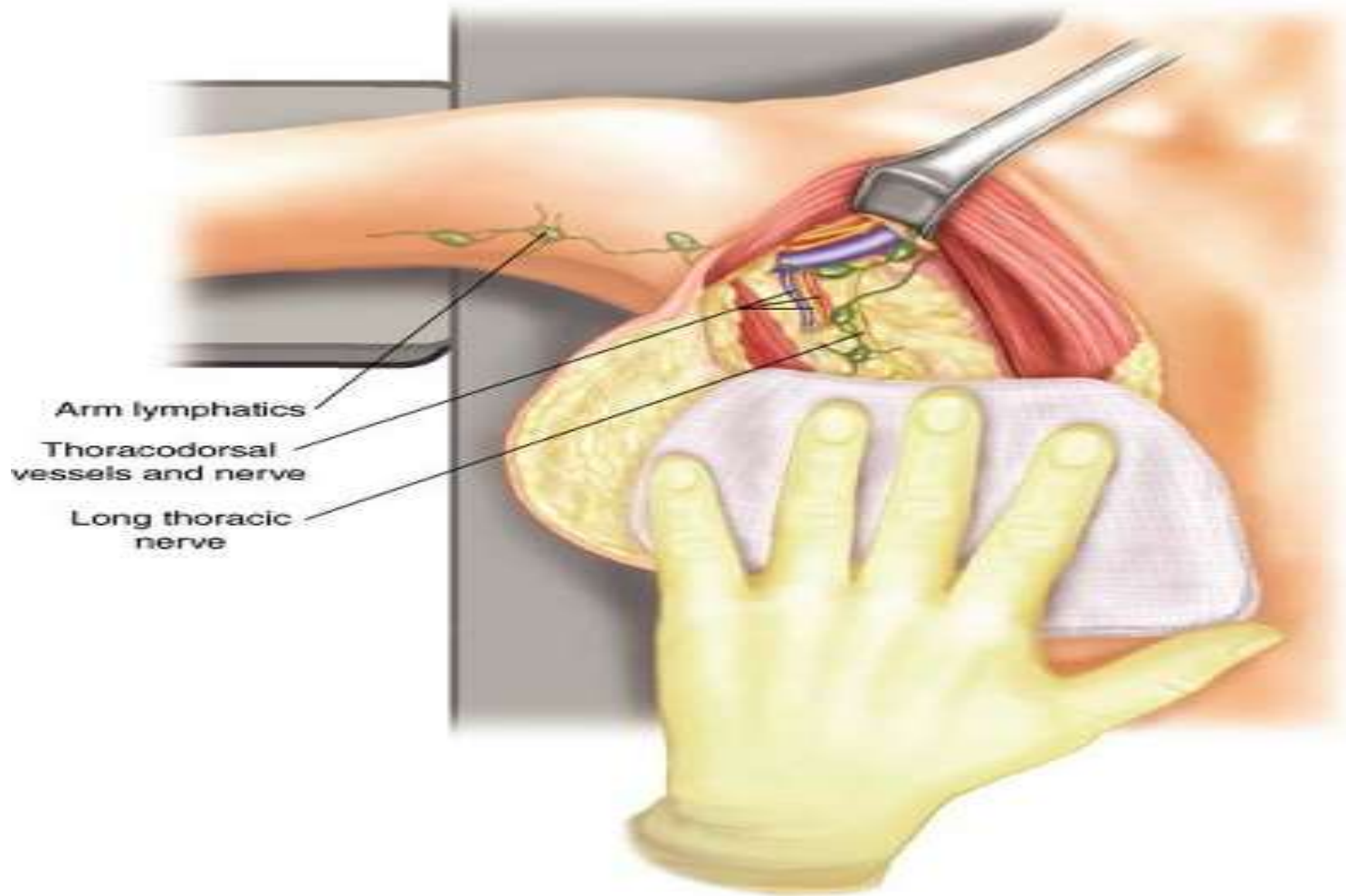


# MODIFIED RADICAL MASTECTOMY



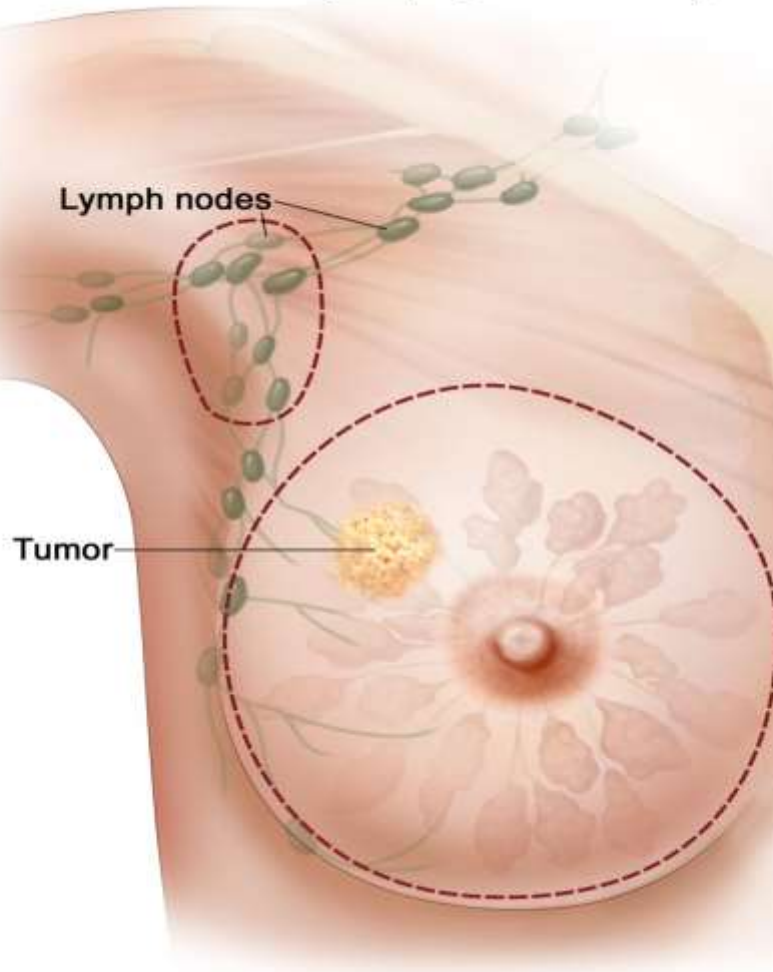


# AXILLARY NODE DISSECTION-



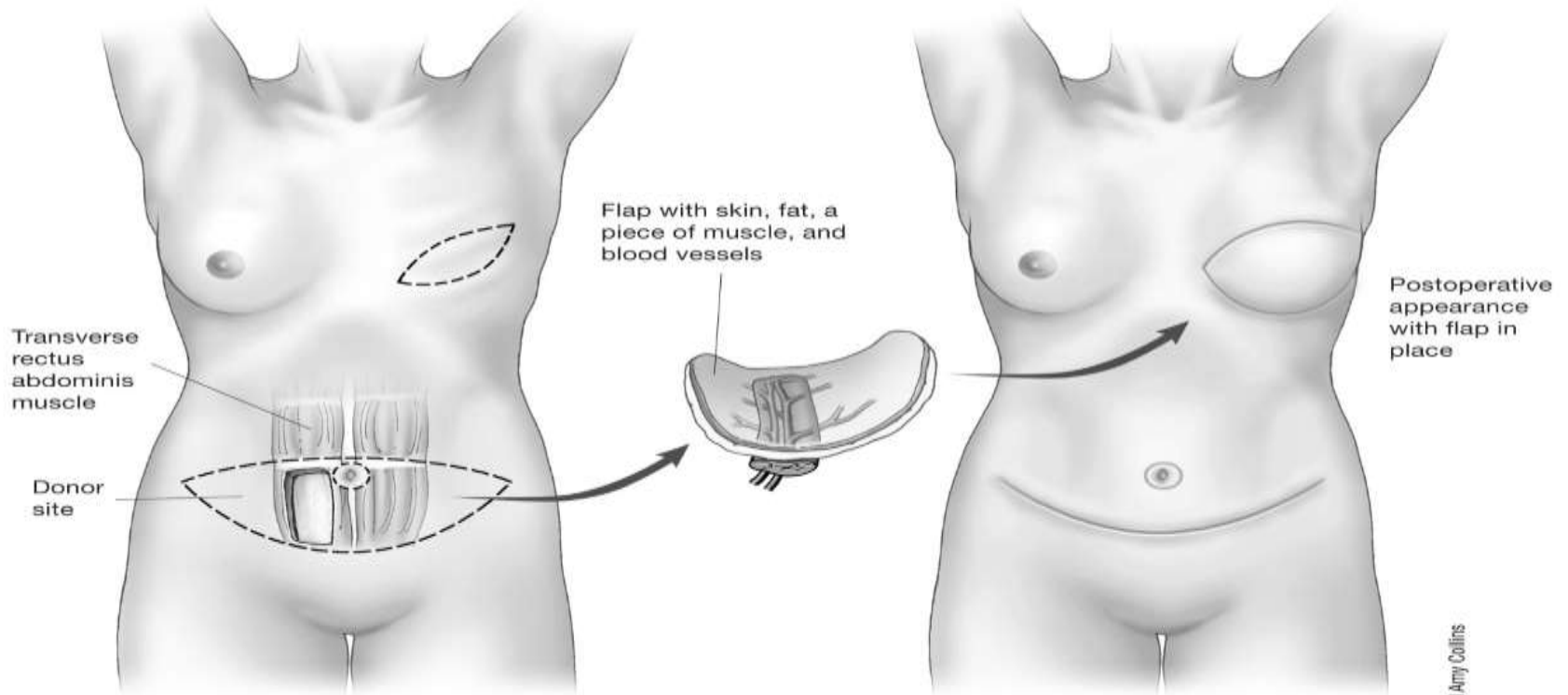
# TOTAL MASTECTOMY-

## Total (Simple) Mastectomy



- Standard radical mastectomy
- Breast reconstruction

### Transverse rectus abdominis muscle or TRAM flap



The illustration above depicts a free flap, in which the tissue is cut free from its original location and reattached in the chest area.



# Bibliography

- D.C. Dutta's, textbook of gynaecology including contraception, Edited by Hiralal Kolar, 6<sup>th</sup> Edition, page no-105-119.
- C.S.Dawn, Textbook of gynaecology, Published by Dawn books, 6<sup>th</sup> edition, page no 77-89.