

group A<sub>1</sub>

surgery

breast CA

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Q<sub>1</sub> Sign & symptoms of breast cancer?

\* Symptoms → ① Firm or hard lump in the breast

② lump in the armpit ③ change in shape and size of breast

④ change to the nipple ⑤ discharge / blood from the nipple.

\* Late symp.:- ① double vision ② muscle weakness ③ headache

④ nausea ⑤ cough ⑥ shortness of breath ⑦ jaundice.

⑧ loss of appetite ⑨ wt loss ⑩ bone pain.

⑪ dimpling or puckering on the breast.

⑫ thickening of the skin orange peel texture.

⑬ swelling of all or part of the breast ⑭ persistent pain in

⑮ scalines

area of the  
breast.

\* Signs:- ① lump or thickened tissue ② skin change

③ Redness, pain, swelling ④ nipple change ⑤ discharge

⑥ vein growth

Q<sub>2</sub> important point in examination of breast CA?

\* main Complaints:- H/O present illness + observation.

① importance of age: Fibroadenoma < 30yr

Carcinoma > 50yr → mammogram > 35.

Choice of Hx depend on age.

② Cause of painful breast → mastalgia.

Fibroadenosis, mastitis, abscess, rare in cancer

③ Risk factor of breast CA: major factor: age > 50

sex ♀, genetic, F/H, nullipara

moderate:- early menarche, late menopause, non lactating

Late pregnancy > 30yr,

⑤ causes of nipple retraction:-

congenital, cancer, duct ectasia, chronic breast abscess

⑥ causes of nipple discharge:-

bloody → duct papilloma (proliferative) and duct carcinoma  
green →  
yellow → abscess

⑦ Paget disease eczema vs dermatitis:-

\* in dermatitis eczema is itching, oozing, bilat  
Respond to treatment, young patient, no lump, intact nipple  
\* in paget opposite

⑧ Dx of breast CA:-

- x triple assessment
  - ① clinical H/O, examination.
  - ② radiological mammogram, USS, MRI
  - ③ biopsy FNAC or excisional.

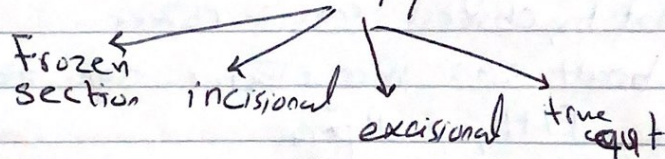
x US → early, cheap, available, informative, non invasive  
- can differentiate cystic from solid

- done for pt < 35 yr

- for cystic do FNAC → malignant if

- " solid do Biopsy

→ bloody  
→ residual  
→ recurrence rapid  
→ true cytology



\* mammography → micro calcification, stellate, speculated irregular, calcification, ↑ vascularity

change of architecture, thick skin.

### ⑨ Complications of mastectomy:-

Specific complications are → lymphoedema, hematoma, seroma, axillary scar (Limit abduction), nerve injury (long thoracic or thoracoacromial) skin necrosis.

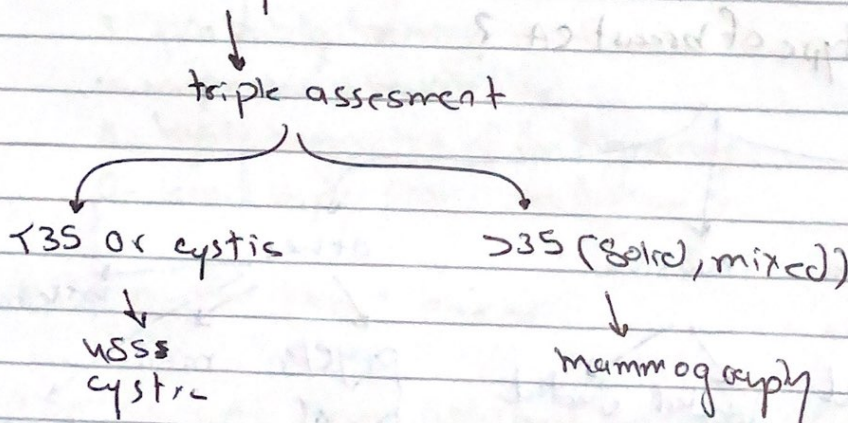
↓  
Serratus ant      Lattissimus dorsi.

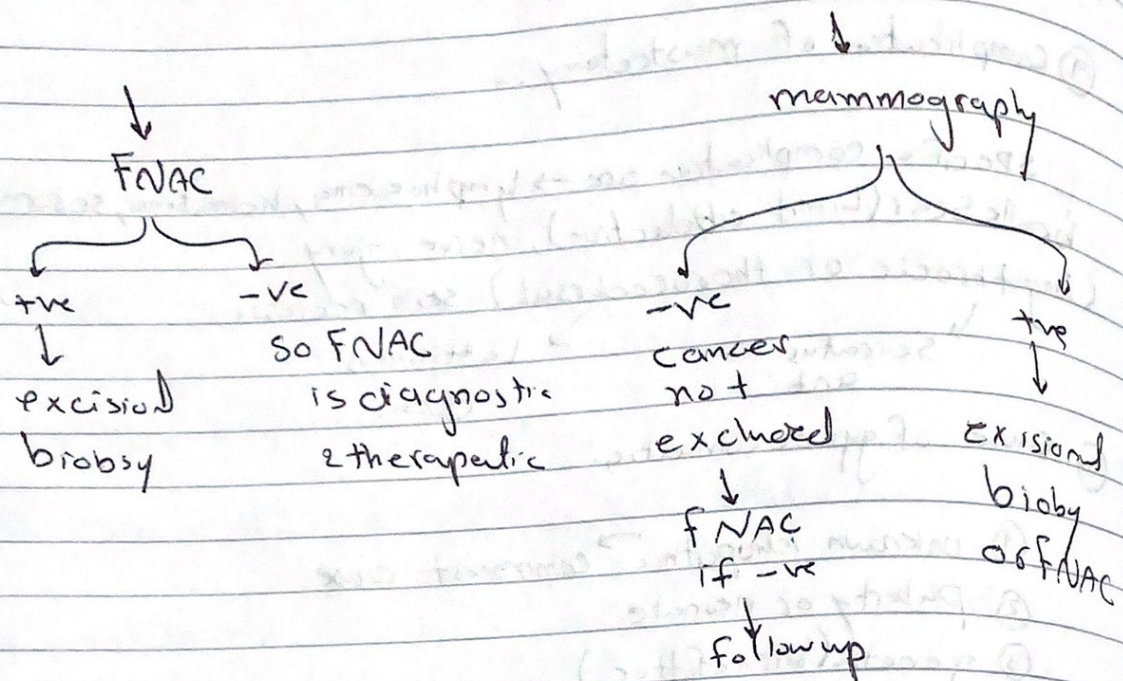
### ⑩ Cause of gynecomastia:-

- ① unknown idiopathic → commonest cause
- ② Puberty or neonate.
- ③ genetic (Klinefelter.)
- ④ iatrogenic (drug) → digitalis, Cimitidine, Reserpine,
- ⑤ aldaton, estrogen therapy (EA prostate)
- ⑥ ↓ testosterone:- orchidectomy, testis atrophy, mumps
- ⑦ ↓ estrogen:- Sertoli cell tumor, Carcinoma lung
- ⑧ Liver cell failure.

### ⑪ Fibroadenosis (AND)

### ⑫ breast lump approach.



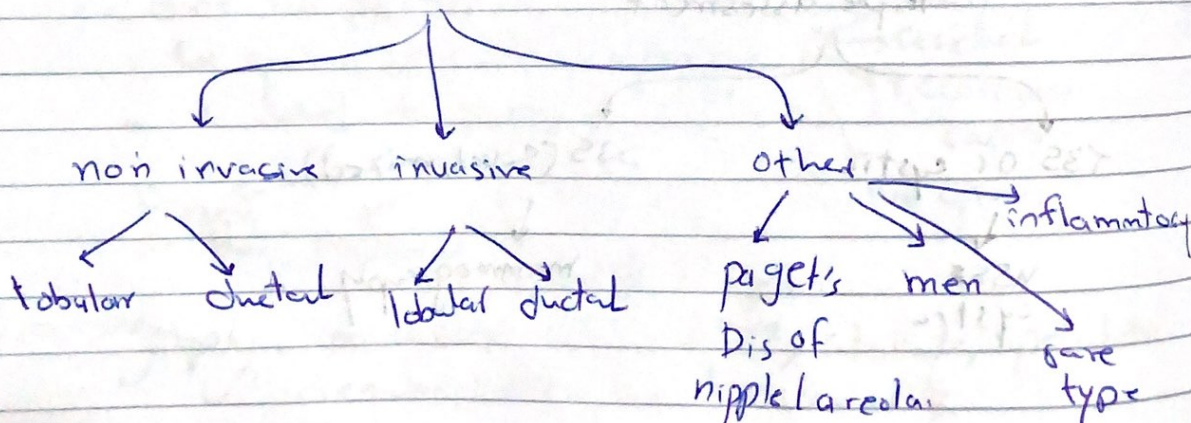


Q13 D/D of large unilateral breast.

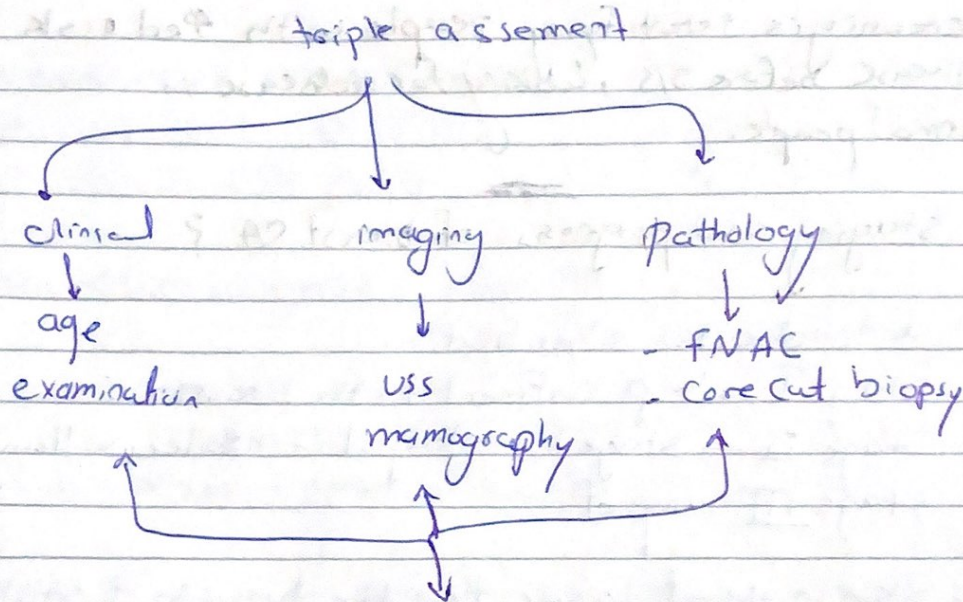
- giant fibroadenoma, phyllodes tumor, vascular malformation, sarcoma

Q14 D/D of breast lump / breast pain / nipple discharge / nipple retraction.

Q15 Different type of breast CA?



Q. How to Dx breast CA?



confident dx in 95% of cases.

Q. BIRADS system in mammogram.

(Breast Imaging Reporting And Data system)

include:

0. incomplete
1. negative
2. benign finding
3. probably benign
4. suspicious abnormality
5. highly suggestive of malignancy
6. known biopsy proven malignancy.

\* screening for breast cancer: -

- all women over 20yr advised to examine her breast monthly (breast self exam)

- mammographic screening 3 yearly for women aged 50-64yr

- screening is identifying people with 4ed risks or disease before s/s, looking for abn disease in a normal people.

Q5 Staging and prognosis of breast CA?

\* manchester classification:

stage I → lump confined to the breast

stage II → stage I + enlarged & mobile axillary L.N

stage III any of

\* Skin involvement larger than the tumor but still limited to the breast

\* Fixed tumor to pectoral muscle

\* Fixed axillary L.Ns

\* Ipsilateral supraclavicular L.Ns

\* edema of the arm

\* Stage IV - Distant mets

- skin involvement wide of the breast

- Fixed tumor to the chest wall

- Distant mets

- involvement of the opposite breast or axilla

## \* TNM staging:

### ① Primary tumor:

- T<sub>0</sub> No evidence of primary tumor
- T<sub>is</sub> CA in situ (LCIS, DCIS)  
Paget's disease of the nipple  
w/d tumor
- T<sub>1</sub> = tumor  $\leq 2$ cm in greatest dimension.
- T<sub>2</sub> = tumor  $> 2$ cm but  $< 5$ cm.
- T<sub>3</sub> = tumor  $> 5$ cm in greatest dimension.
- T<sub>4</sub> = tumor of any size with direct extension to chest wall or skin.

### ② Regional Lymph node

N<sub>0</sub> = No palpable axillary node

N<sub>1</sub> = mets to movable axillary nodes

N<sub>2</sub> = mets to fixed, matted axillary nodes.

### ③ Distant mets:

M<sub>0</sub> = No distant mets

M<sub>1</sub> = Distant mets

including ipsilateral supraclavicular nodes.

✓ clinical stage I → T<sub>1</sub> No Mo  
 x clinical stage IIA → T<sub>1</sub> N<sub>1</sub> Mo  
                                   T<sub>2</sub> No Mo  
 x clinical stage IIB → T<sub>2</sub> N<sub>1</sub> Mo  
                                   T<sub>3</sub> No Mo  
 x clinical stage IIIA → T<sub>1</sub> N<sub>2</sub> Mo  
                                   T<sub>2</sub> N<sub>2</sub> Mo  
                                   T<sub>3</sub> N<sub>1</sub> Mo  
                                   T<sub>3</sub> N<sub>2</sub> Mo  
 x clinical stage IIIB → T<sub>4</sub> any N Mo  
 x clinical stage IV → any T any N M<sub>1</sub>

stage	prognosis (5yr surv rate)
I	> 90%
II	> 70%
III	< 70%
IV	< 30%



## Q6 treatment of breast cancer?

- ① surgery: local treatment of early breast cancer.
- ② Radiotherapy: local treatment, breast and Axilla.
- ③ chemotherapy: systemic treatment.
- ④ Hormone therapy: systemic treatment.  
drugs that interfere with hormone production or hormone action
- ⑤ or surgical removal hormone producing glands to kill cancer cell or slow their growth.
- ⑥ immunotherapy

\* **type of mastectomy**: ① Simple mastectomy: Removal of all breast tissue, nipple-areolar complex and skin with no dissection of the axilla.

② extended simple mastectomy: removal of all breast tissue, nipple areolar complex, skin, level I axillary nodes.

③ modified radical mastectomy: patey's modification (patey mastectomy) it's standard operation.

• Removal of all breast tissue, nipple areolar complex, skin, level I and level II axillary nodes. preserving the pectoral major.

④ Radical mastectomy (Halsted)

⑤ Breast Conservation surgery.

\* Various surgical procedures employed are:

① wide local excision.

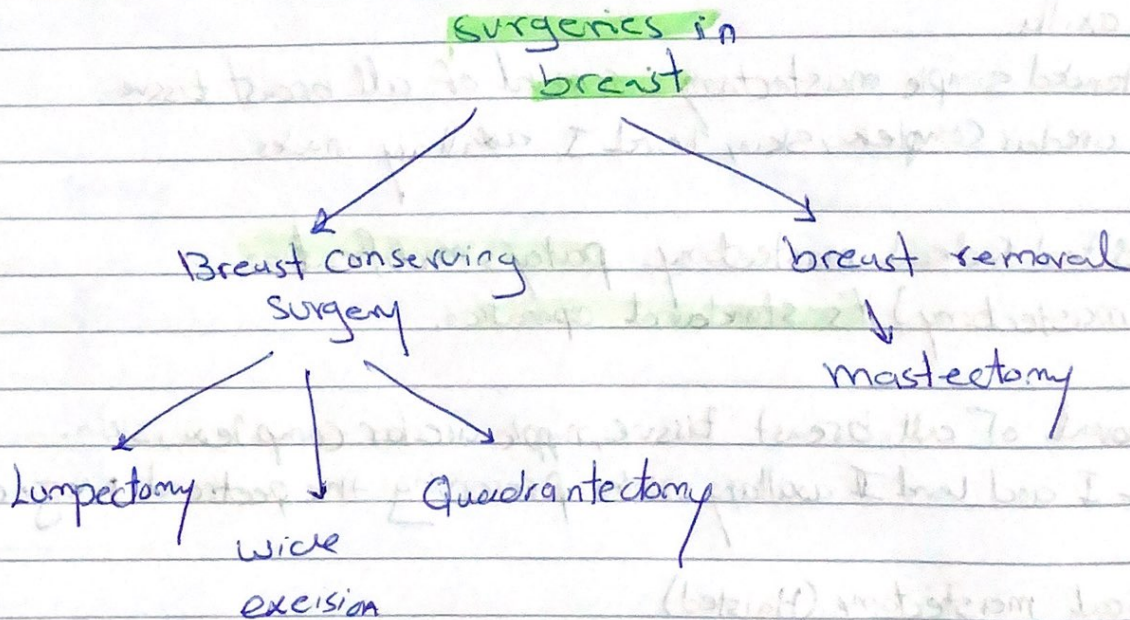
② lumpectomy

③ aquadrantectomy involves removing the entire segment of breast which contains the tumor

- BCS + Axillary lymphadenectomy + postoperative radiation therapy

- axillary surgery, usually via a separate incision in the axilla (sampling the axilla)

- local recurrence more than mastectomy so follow up important



## \* breast reconstruction :-

\* time: immediate reconstruction is the ideal type of reconstruction:

- ① a silicone gel or silicone with saline implant
- ② autogenous transplant: a microvascular flap either:
  - Ⓐ latissimus dorsi muscle (an LD flap)
  - Ⓑ the contralateral transverse abdominis muscle [tram flap] most common used

~~x the latter~~ ③ gluteal flap ④ Rubein's flap

⑤ lat thigh flap

③ external breast prostheses: which fit within the bra may be also recommended