Breast 3

(History & Examination)

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Breast History Taking

Age and sex :

Try to **correlate** the age of the patient presentation with the most common pathology encountered in this age group,

Examples:

o After birth: mastitis neonatorum.

o At puberty: pubertal mastitis.

o Adolescence: hard fibroadenoma.

o Childbearing period: soft fibroadenoma, duct papilloma.

o Carcinoma occurs at any age after puberty.

Complaint :

The chief complaints are : swelling, pain, and nipple discharge.

>> Swelling (lump) :

Ask about :

* Mode of onset
* Duration and rate of growth (course). Long duration with slow rate of growth usually indicates benign lesions.
* Associated manifestations suggesting inflammatory process (redness, fever, rigors)
* Associated manifestations suggesting specific infection (mainly T.B.)
* Risk factors for malignancy (hormonal, irradiation, family history, etc.)
* Manifestation suggesting metastatic disease (dyspnea, jaundice, headache, jaundice, bone pains, etc.

>> Pain :

* ***SOCRATES*** approach
* Usually, pain is associated with inflammatory lesions as acute mastitis
* Fibrocystic disease is characterized by cyclic pain (mastalgia) that is related to menstruation.
* Tumors (benign or malignant) are painless
* Carcinoma is painless in early stages and painful in advanced stages with local invasion.

>> Nipple Discharge :

Ask about :

* Amount (Minimal or Profuse).
* Colour & Character :
    - Bright red blood: duct papilloma / duct carcinoma
    - Purulent: abscess.
    - Milky: galactocele.
    - Serous: Fibrocystic disease.
    - Cheesy : duct ectasia.
* Unilateral or bilateral.
* Uni-ductal or multi-ductal.
* Spontaneous or induced with squeezing.

Past history :

Ask about :

* Menstrual history (including **Menarche**)
* Marital state.
* Number of pregnancies & miscarriages.
* History of lactation.
* History of breast trauma.
* History of previous troubles (diseases, surgeries) in the breast.

Breast Examination

Exposure of these patient :

Patient should be undressed down to the waist

Positioning of these patient :

>> Two complementary positions are used for breast examination :

- **Sitting upright** “especially during inspection” :

  This position makes the breasts pendulous”.

- **Lying supine with head of the bed raised 45 degrees :**

  This position is the best compromise between lying flat which makes the breasts fall sideways.

Inspection :

>> Stand in front of the patient while she is in the sitting position and resting the hands on the thighs.

>> Size and symmetry :

The two sides **must be compared**, **examining the normal side first.**

* There is enormous variation within individuals

* It is quite normal for there to be a difference between the sides.

* However, any marked size difference of recent onset is likely to be caused by significant pathology.

>> Shape and contour :

Whether the breast has normal shape or Disfigured.

>> Visible swelling ;

Comment if there is any visible swelling on inspection (number, shape and size).

>> The breast skin :


peau d’orange

Observe if there is any :

* Redness
* Dilated veins
* Scars
* Peau de'orange:

Cutaneous lymphatic edema. Where the affected skin is tethered by the sweat ducts where it cannot swell, leading to an appearance that resembles orange skin. “it can be a sign of malignancy”


puckering

* Puckering (wrinkling) due to skin fixation by tumor.
* Dimpling (ligaments of cooper invasion).
* Nodules.
* Ulceration.


dimpling

>> Ask the patient to do some maneuvers that may help in making these signs more visible :

* Ask the patient to press her hands firmly on her hips to contract the pectoral muscles and inspect again, this may reveal previously invisible swelling.

* Ask her to slowly raise her arms above her head, as skin changes become more apparent particularly tethering to a carcinoma, and to enable to expose the underside of breast,

* Ask her to lean forward to expose the whole breast and exacerbate skin dimpling.

* Inspect axillary tail for visible swell

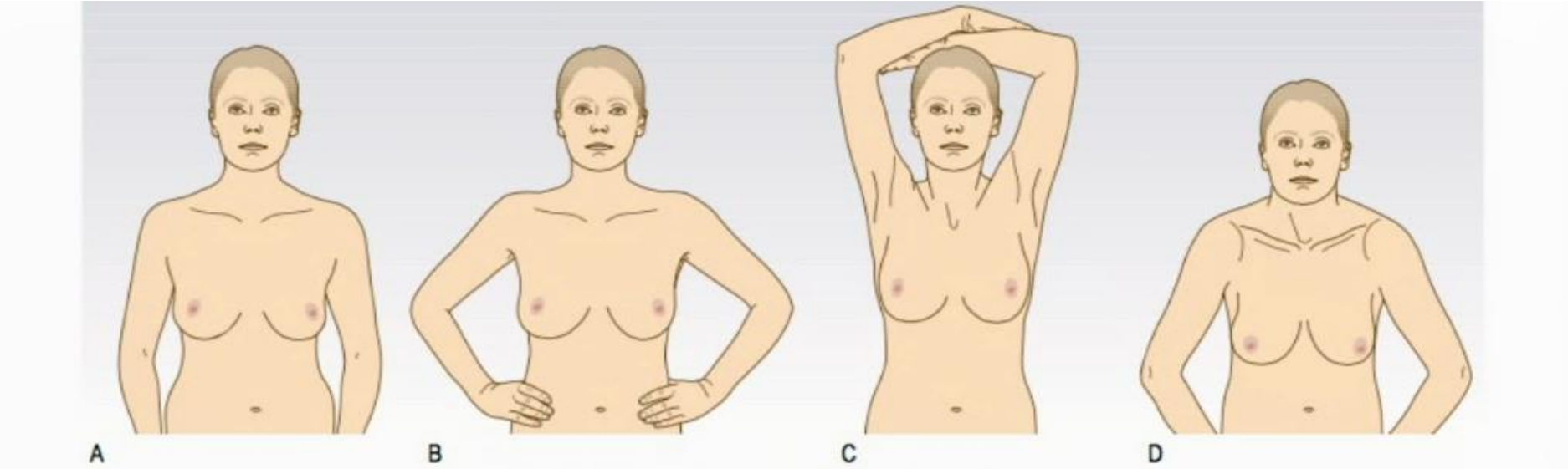


Fig. 10.12 Positions for inspecting the breasts. (A) Hands resting on thighs. **(B)** Hands pressed on to hips. **(C)** Arms above head. **(D)** Leaning forward with breasts pendulous.

>> The nipples and areolae: (4 Ds) :

Observe if there is any:

* Depression (Retraction or Inversion) :

It may be congenital. Recent inversion raises the suspicion for malignancy.


Retracted Nipple

* Deviation :

If it is deviated from the normal direction.

he normal nipple points forwards, slightly outwards and downwards.

Note if the nipple is :

Not prominent

Displaced

Deviated


Deviated Nipple

* Destruction :

> As in “Paget’s disease of the nipple”

➢ Compare findings to eczema and cracks of the nipple.


Nipple Erosion (destruction)

* Discharge :

> If there is not spontaneous discharge, ask the patient to squeeze her nipples and note if there is any nipple discharge.

> If present comment on the same way of history (refer back)


Nipple Bloody Discharge

>> Axilla :

** Inspect the axilla and observe if there are any visible swellings

>> Arm :

>> Inspect the arm for swelling “lymphedema”

Palpation :

• Palpation of the breast should be performed with the patient **lying at about 45 degrees** on the couch with the hands by her sides

• Ask the patient if there is **any pain or tenderness**—and examine that area last. Also ask her to tell you if you cause any pain during the examination.

• You should **begin** the examination **on the asymptomatic side**, allowing you to determine the texture of the normal breast first.

• Palpation should be performed by keeping the **flat of the fingers** and gently rolling the substance of the breast against the underlying chest wall.

• Most breasts will feel ‘lumpy’ if pinched. Do not use ‘the flat of the hand’ this is wrong, use the fingers, which are far more sensitive.

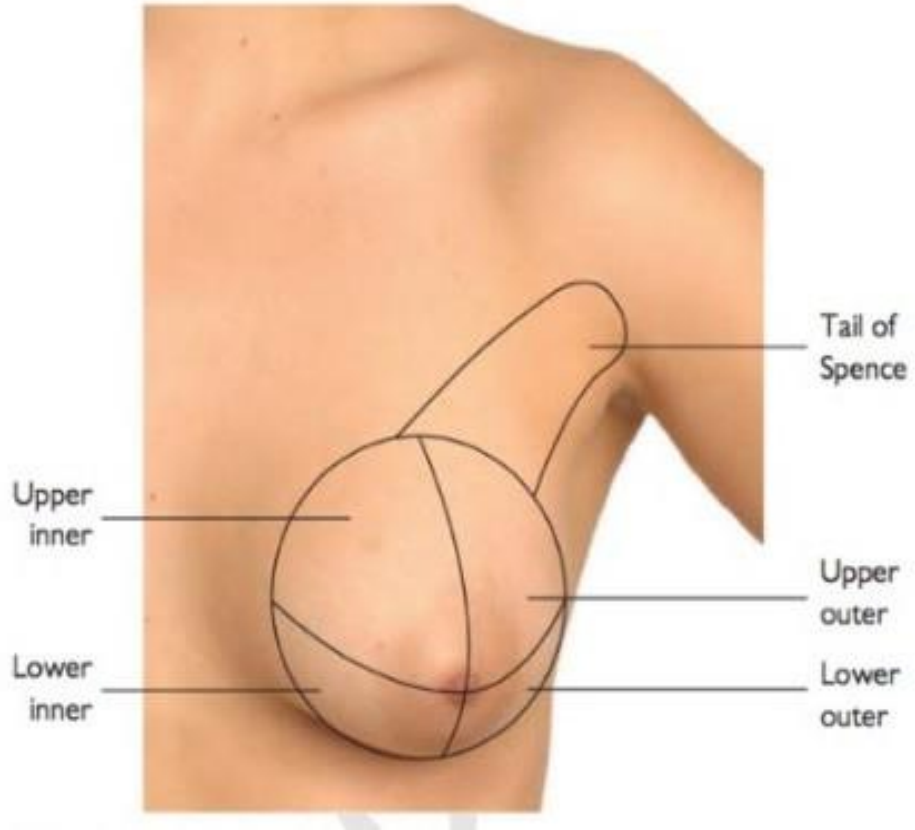
• In **fibrocystic disease,** a nodular texture of the breast is often palpable by fingers but not by the flat of the hand

• You should proceed in a systematic way to ensure that the whole breast is examined

>>> Four breast quadrants :

* Upper outer
* Upper inner
* Lower inner
* Lower outer
* Retro-areola region “ Central “
* Axillary tail: lies over the anterior axillary fold.
* Inferior aspect of the breast “ in case of large sized breast

• Observe if there are abnormal swelling palpated in these areas.



• If there is **any swelling " Lump" felt**, proceed for systematic examination of the swelling "refer Back to the lump examination" and **comment on**:

* ***Site*** :

Locate in which quadrant.

* ***Size***

* ***Shape***

Wedge shaped: milk engorgement.

Globular: cyst or fibroadenoma.

Irregular: carcinoma.

* ***Surface*** :

Smooth: benign

Irregular: carcinoma.

* ***Edges*** :

Well defined & regular: benign

Ill defined & irregular: carcinoma.

* ***Consistency*** :

Cystic.

Firm.

Hard.

Stony hard: it is very important sign of malignancy.

* ***Warmth*** :

Present over inflammatory swellings, sometimes carcinoma or sarcoma.

* ***Tenderness*** :

The more tender the lump is the less likely to be malignant.

* ***Relation to overlying skin:***

Try to move the swelling and test for skin fixation, if a lump is tethered to the skin, it behaves as if it is tied to it, the mass cannot be moved without moving the skin. (skin pinching test)

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* ***Mobility :***

Within the breast tissue by holding the breast in one hand and moving the lump by the other hand.

>> Carcinoma: the tumor is fixed in its bed

>> Fibroadenoma: freely mobile within the breast tissue (breast mouse).

- ***In relation to the underlying muscles :***

>> The lump may be fixed to the underlying muscle, where it can be moved to some degree if the muscle is relaxed but are less mobile if the muscle is tensed.

>> Pectoralis major muscle:

Ask the patient to rest her hand on her hip with the arm relaxed.

Hold the lump between your thumb and forefingers and test its mobility by moving it in two planes at right angles to each other (e.g. up/down and left/right).

Ask the patient to press her hand against her hip causing contraction of the pectoralis major.

Feel the anterior fold of the axilla to verify the pectoralis major is fully contracted

Repeat the mobility testing and comment.

Any restriction in mobility indicates adherence to the pectoral fascia & pectoralis muscle

>> Serratus anterior :

- Tumors in the lower outer quadrant lie on the serratus anterior.
- It should be put in contraction to test mobility of these tumors.
- This is done by asking the patient to place outstretched hand upon your shoulder and press hard.

**** In relation to the chest wall :***

o Fixity to the chest wall results in loss of all mobility irrespective of muscular contraction.