

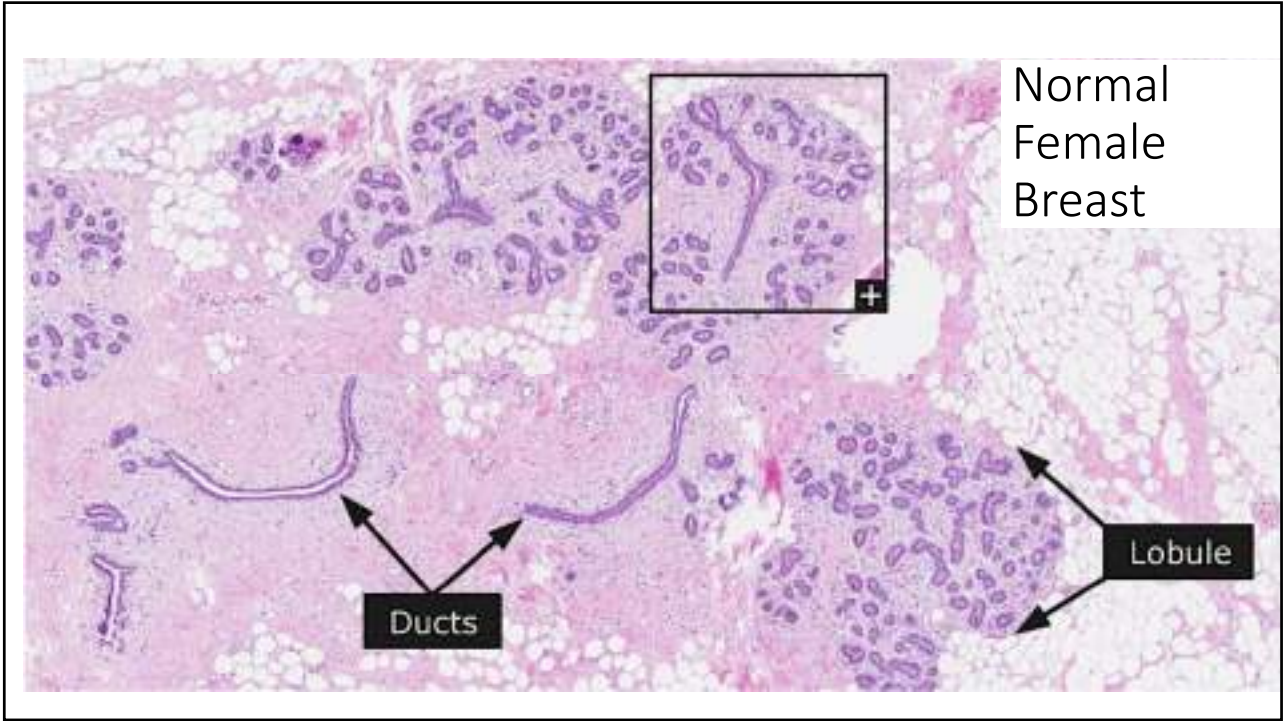
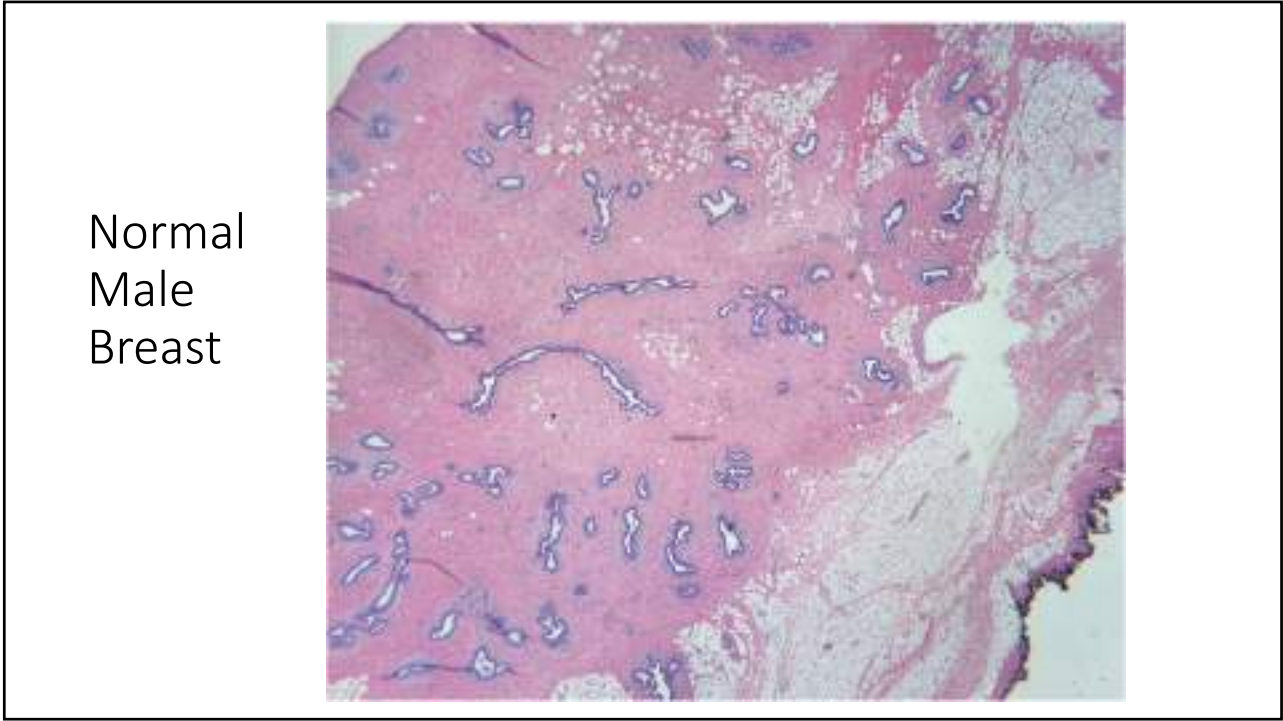
Pathology of the Male Breast

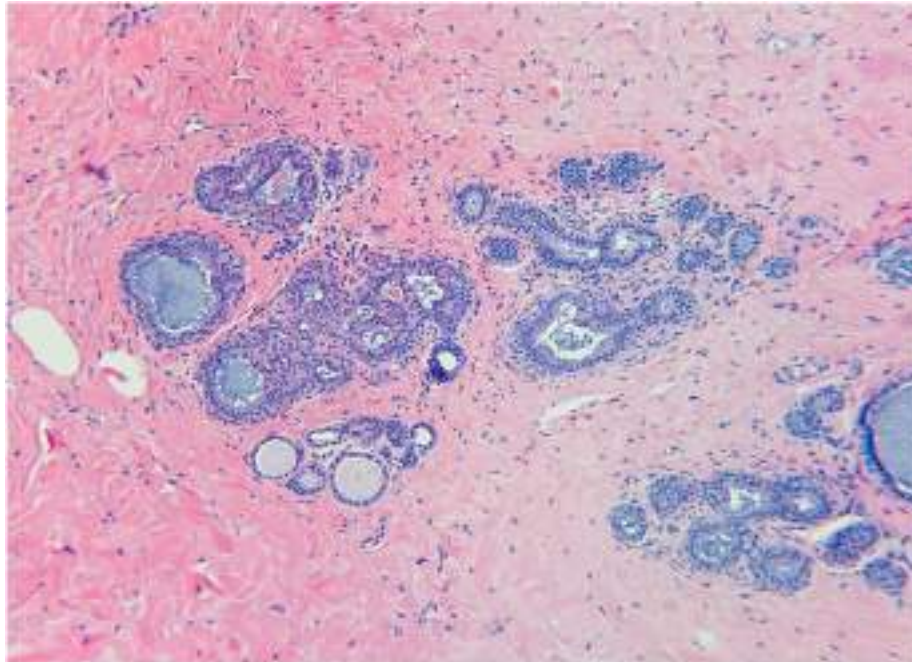
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Normal Male Breast

- Small nipple/areolar complex
- Underlying ducts
- Ducts end blindly
- No lobules







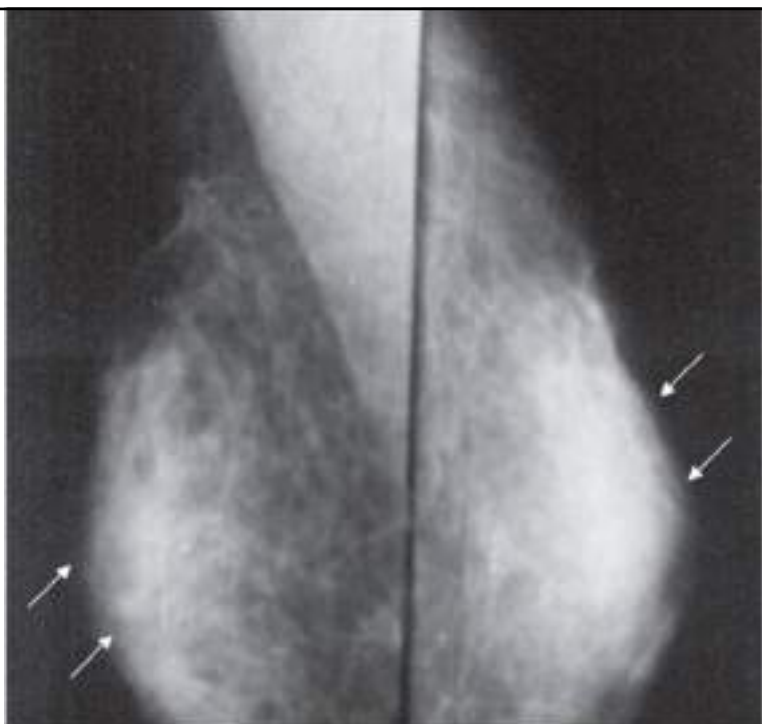
Gynecomastia- Enlargement of Male Breast

- Peripubertal children
- Males > 50
- Marijuana use
- Soft nodule, can be pendulous
- Occasionally tender
- Unilateral or Bilateral
- Benign, self limited disorder
- No increase in cancer rate



Mammography in Males

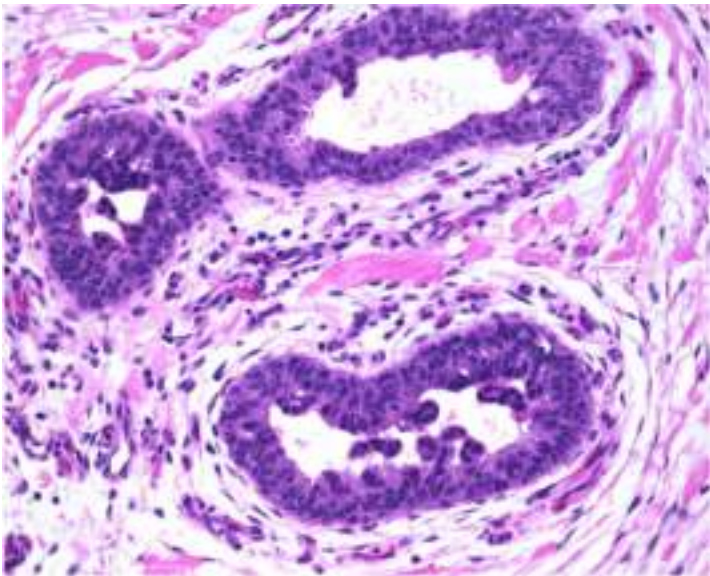
There is a tendency to deny the possibility of male breast cancer. Do NOT fail to investigate a mass or other finding because your patient is male.



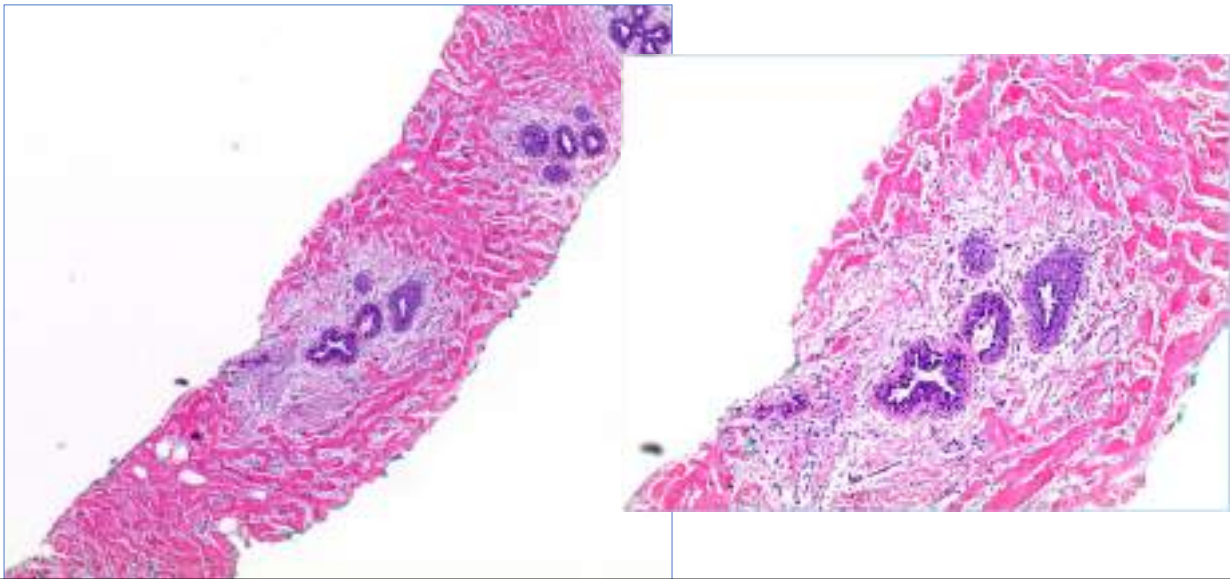
Gynecomastia- Pathologic Features

- Florid Type
 - Abundant epithelial hyperplasia
 - Finger-like projections into the lumen
 - Often pseudoangiomatous stromal hyperplasia
- Fibrous Type
 - Scattered atrophic ducts
 - Prominent deposition of collagen
- Edematous stroma
- Not well defined margins

Gynecomastia
Florid Type



Gynecomastia with prominent PASH



Gynecomastia Fibrous Type



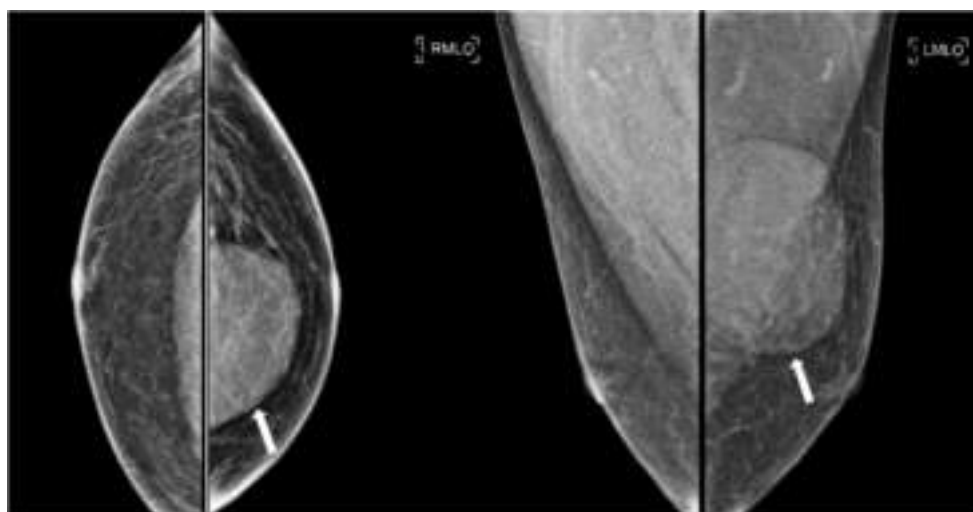
Differential Diagnosis Gynecomastia

- Myofibroblastoma
- Fibroadenoma (very rare)
- Fat Necrosis
- Epidermal Inclusion Cyst
- Breast carcinoma

Myofibroblastoma

- Benign lesion arising from mammary stroma
- M=F
- Usually a single, well circumscribed mass
- Can occur at extra-mammary sites
 - Inguinal

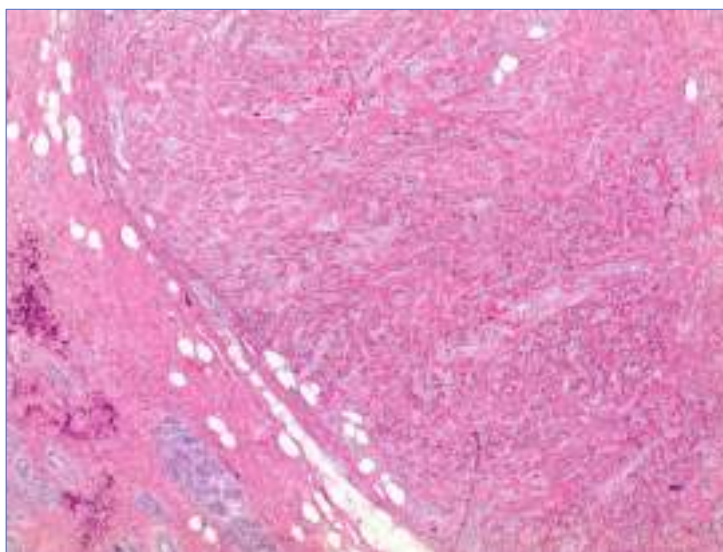
Myofibroblastoma

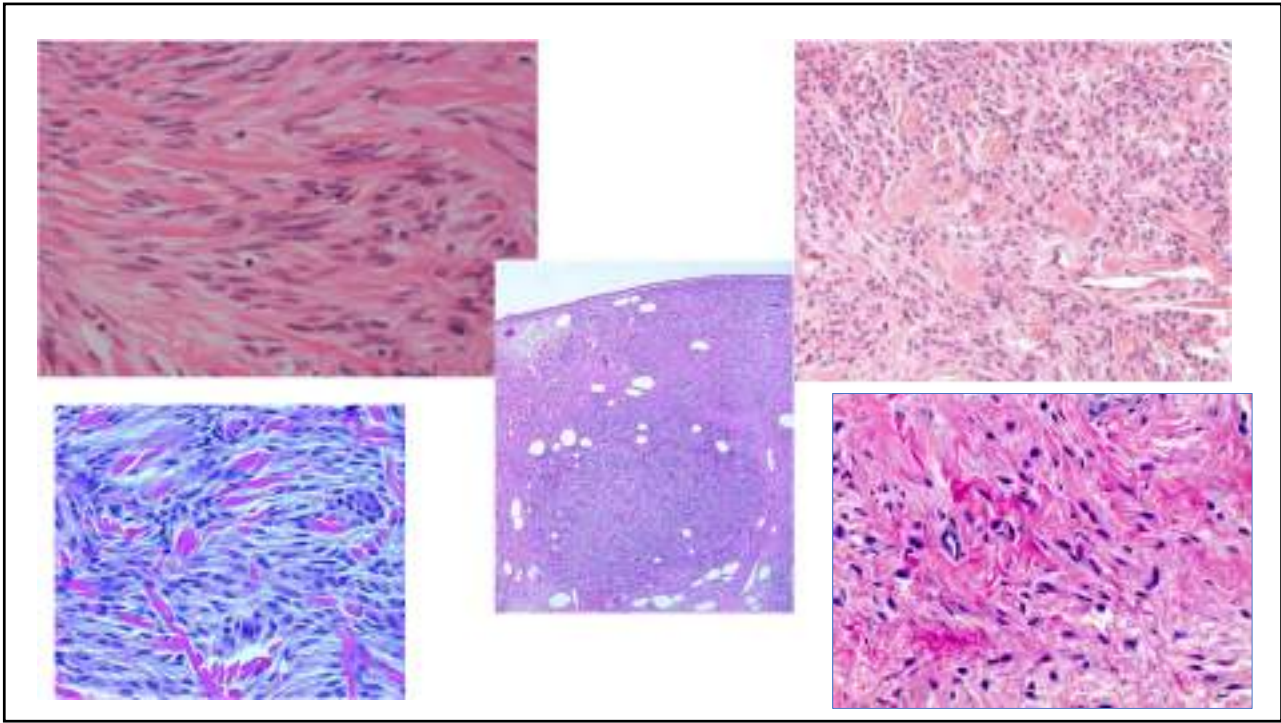


Myofibroblastoma

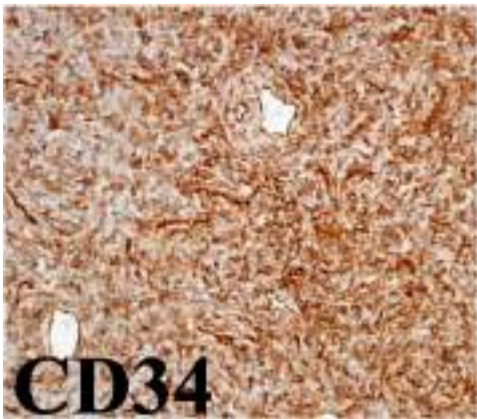
- Short fascicles with round/oval nuclei
- Variable fat
- Broad bands of hyalinized collagen
- Can be challenging pathologically to differentiate from spindle cell carcinoma and lobular carcinoma

Myofibroblastoma





Myofibroblastoma



Myofibroblastoma- Other Features

- Multiple variants:

- | | | |
|--------------|--------------|-------------|
| • Fibrous | Cellular | Lipomatous |
| • Myxoid | Infiltrative | Deciduoid |
| • Palisading | Atypical | EPITHELIOID |

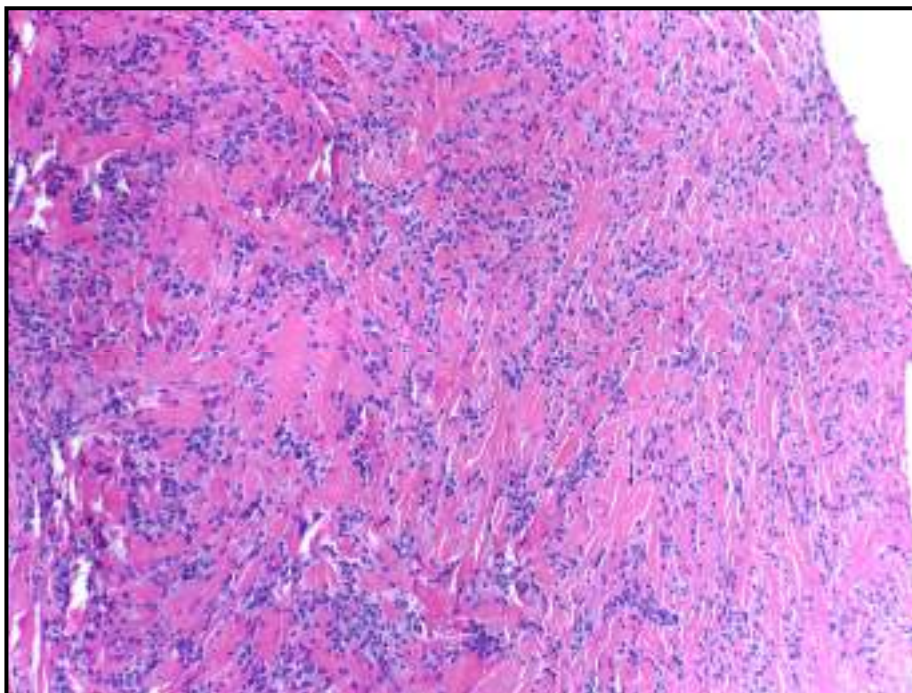
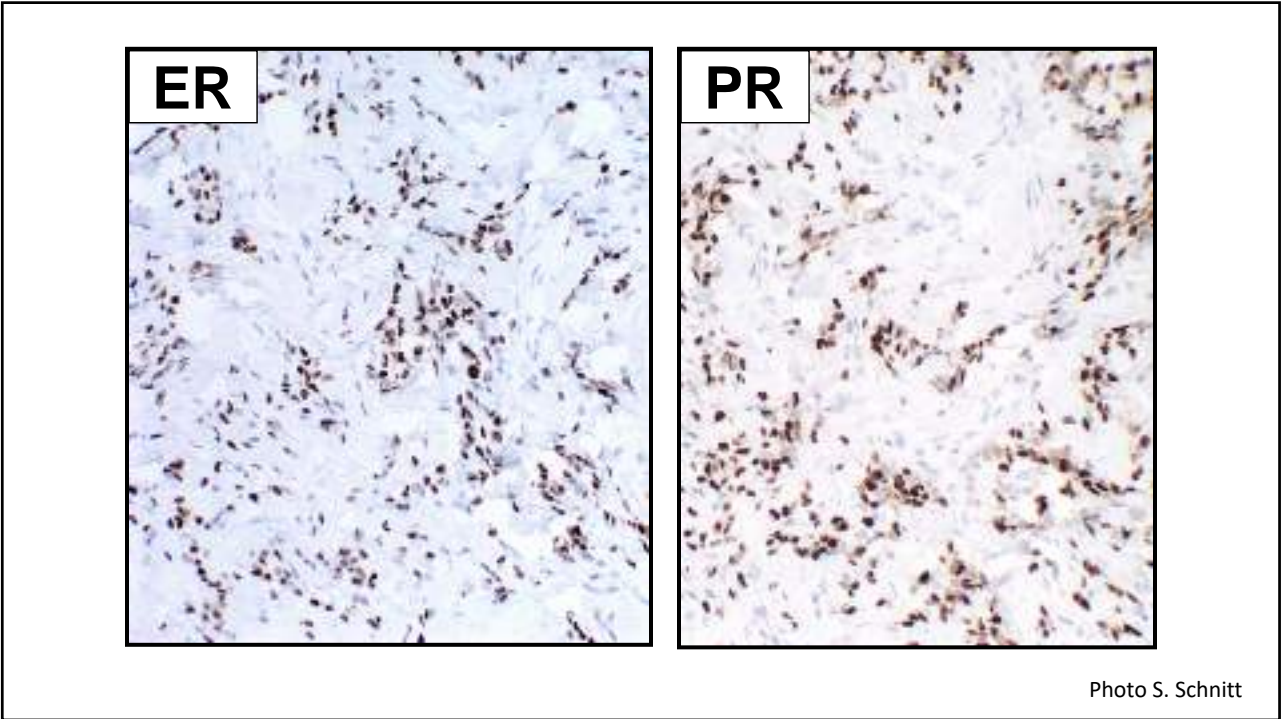
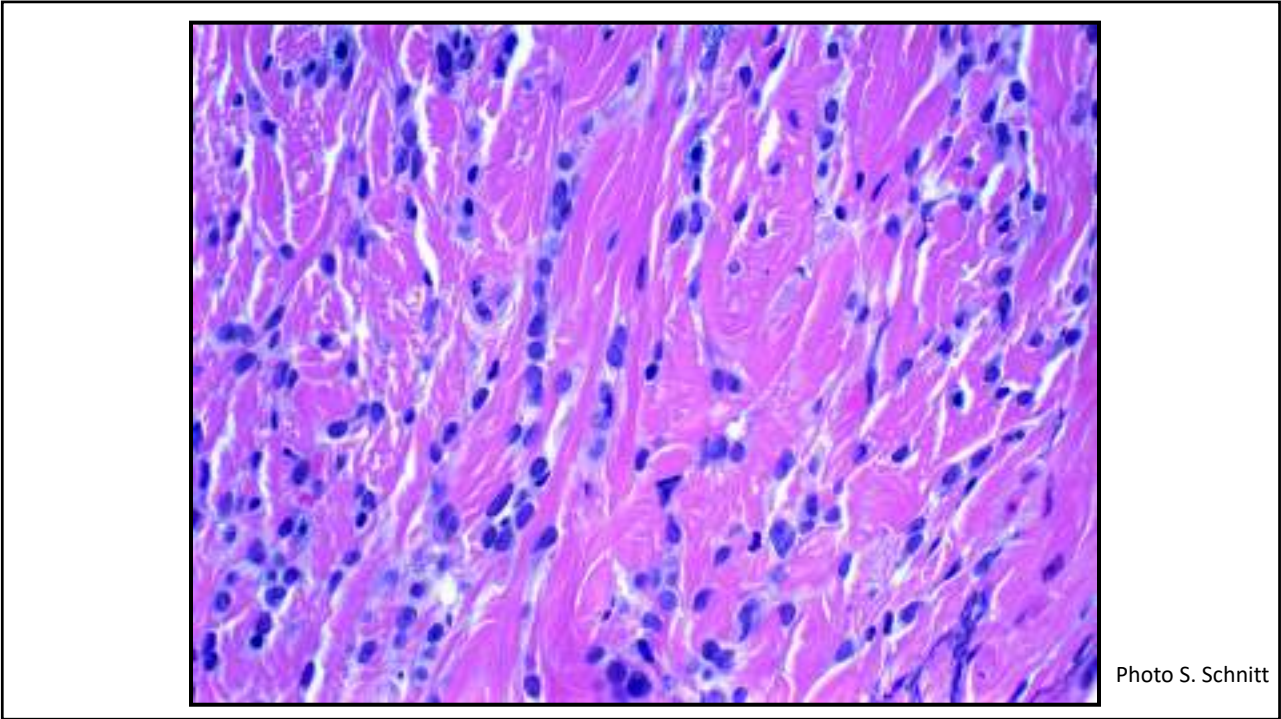
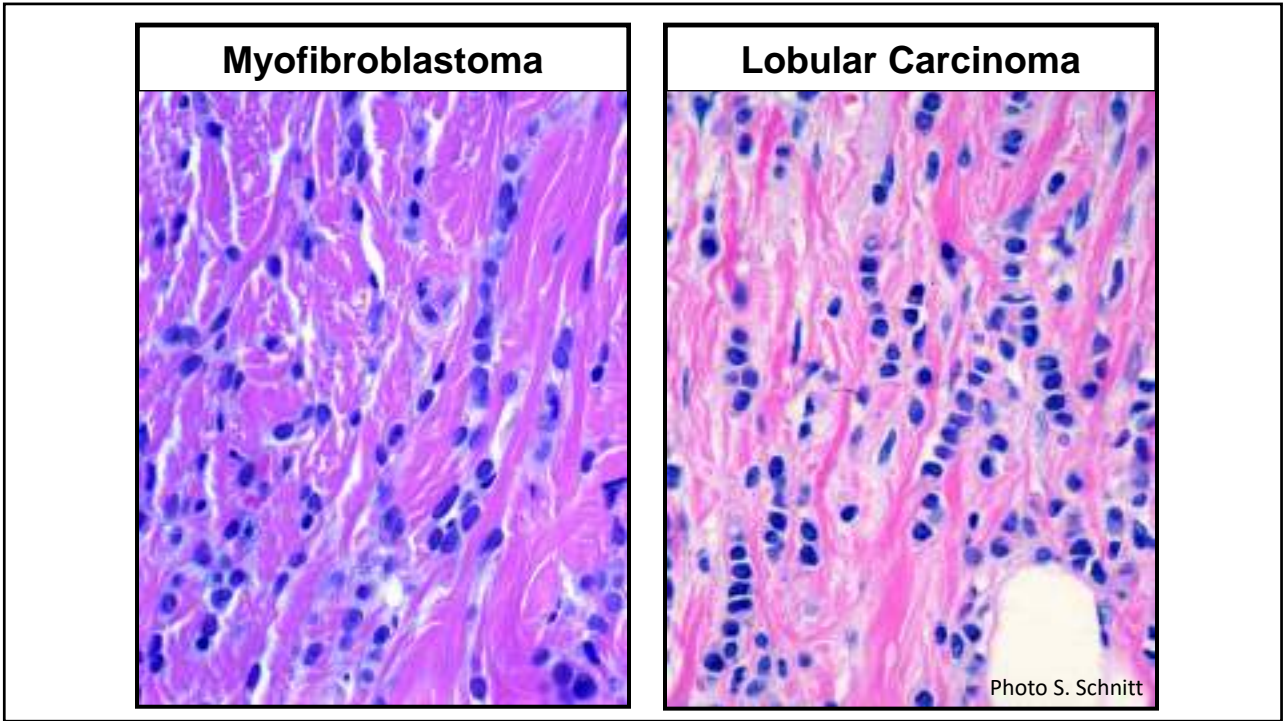


Photo S. Schnitt





Epithelioid Myofibroblastoma

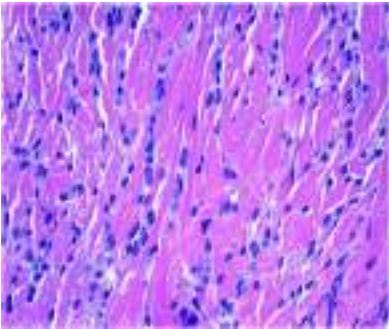
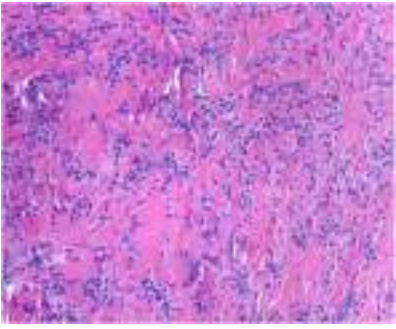
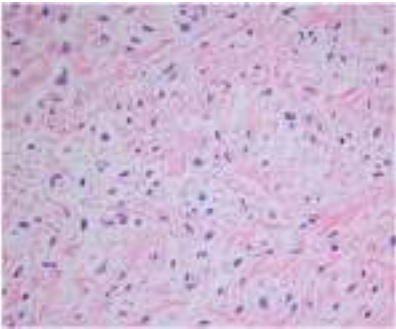


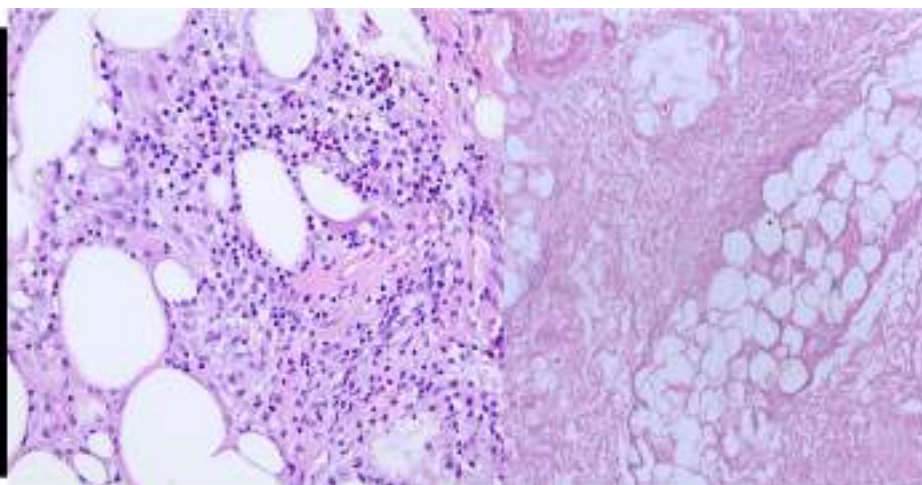
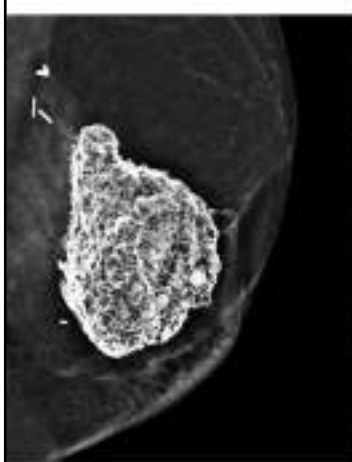
Photo S. Schnitt

ER+, PR+, HER2-....Can easily be confused with
Lobular Carcinoma

Fat Necrosis

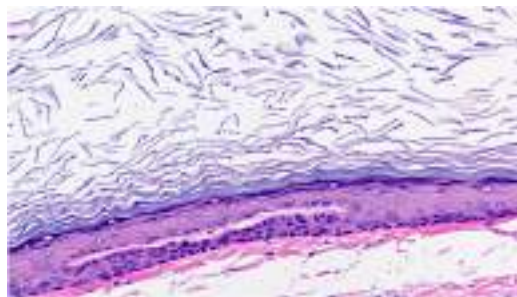
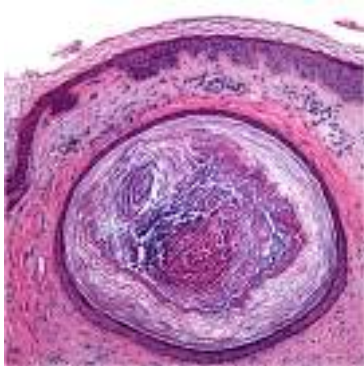
- Benign
- Inflammatory/fibrotic reaction due to trauma
- Often presents with a mass
- Can resemble Gynecomastia and cancer
- Core biopsy sufficient to diagnose usually

Fat Necrosis



Epidermal Inclusion Cyst

- Benign cyst lined by stratified squamous epithelium with keratin
- Form from a portion of the hair follicle and secrete keratin and lipid



Gynecomastia vs Cancer

- Both usually self detected
- Can both be subareolar
- Nipple discharge, ulceration, bleeding, and skin inversion are indicative of underlying malignancy



Male Breast Cancer

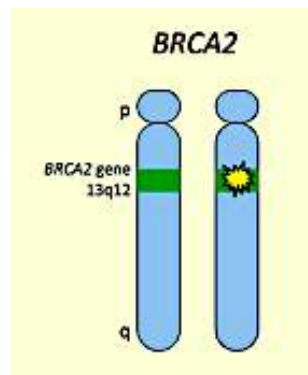
- Rare in US
- 0.2% of all cancers and < 0.1% of all deaths from cancer
- Tanzania and Central Africa ~6% of all male cancers
- Usually older males
- Self detected
- Stage of presentation higher than in females

Male Breast Cancer Risk Factors

- Age
- Hypoandrogenism (Hypogonadism, Testicular Injury, Cryptorchidism)
- Prior chest wall radiation
- Liver disease
- Klinefelter Syndrome (XXY)

Male Breast Cancer Genetics

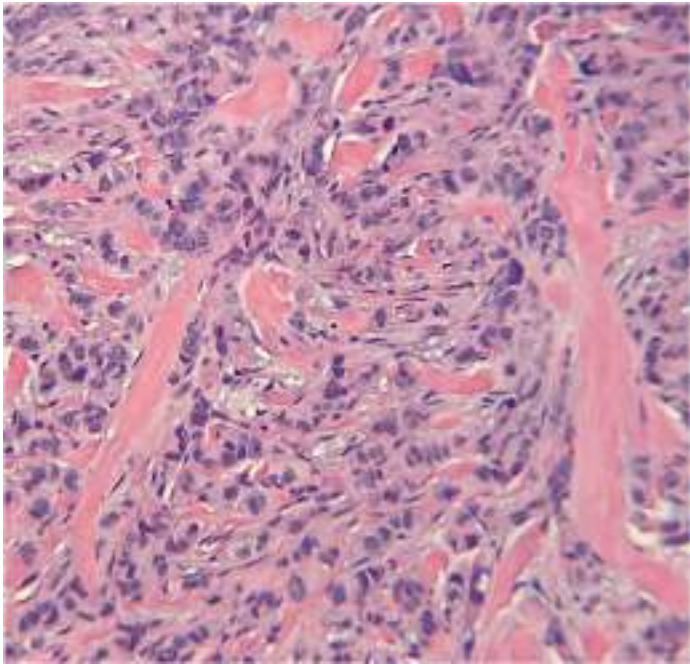
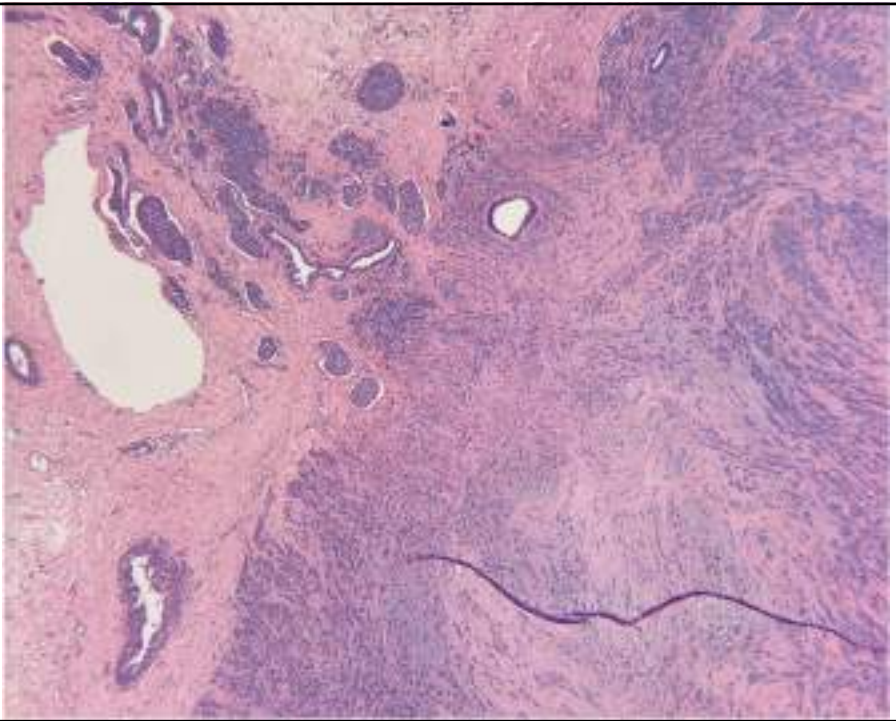
- *BRCA2* mutations
 - 6% lifetime risk of male breast cancer
- *p53* mutations
- *PTEN* mutations

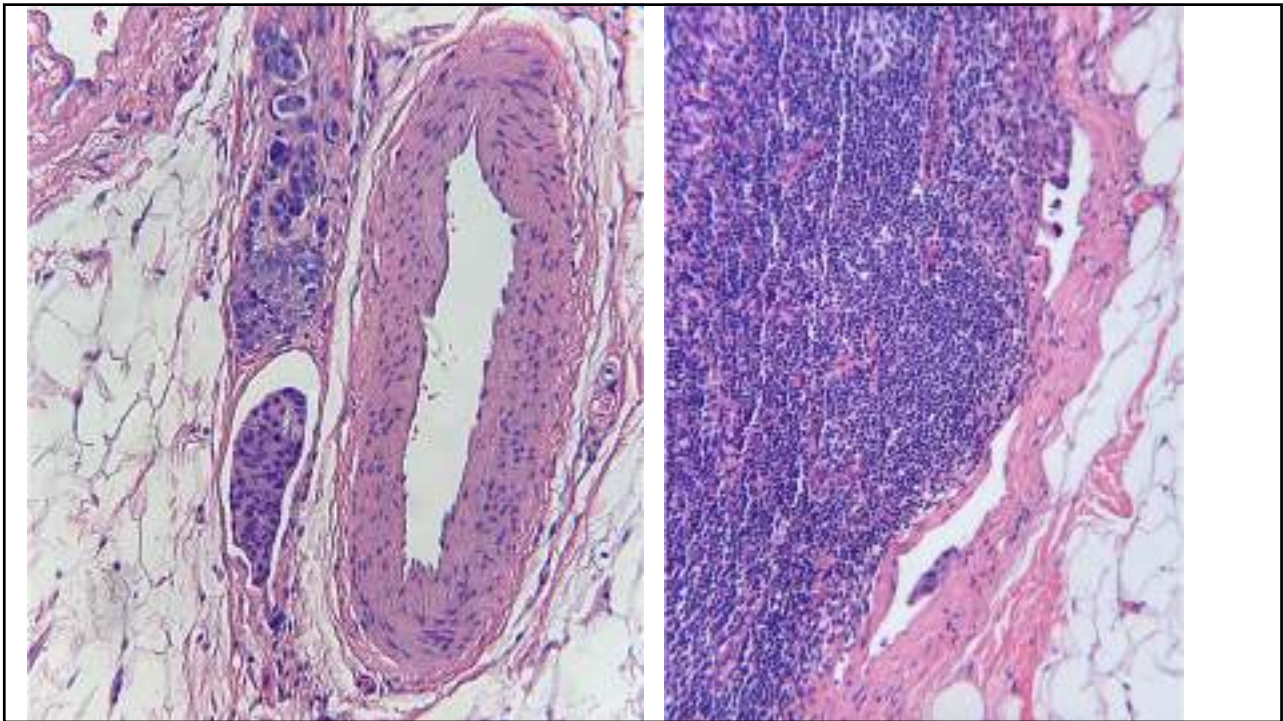
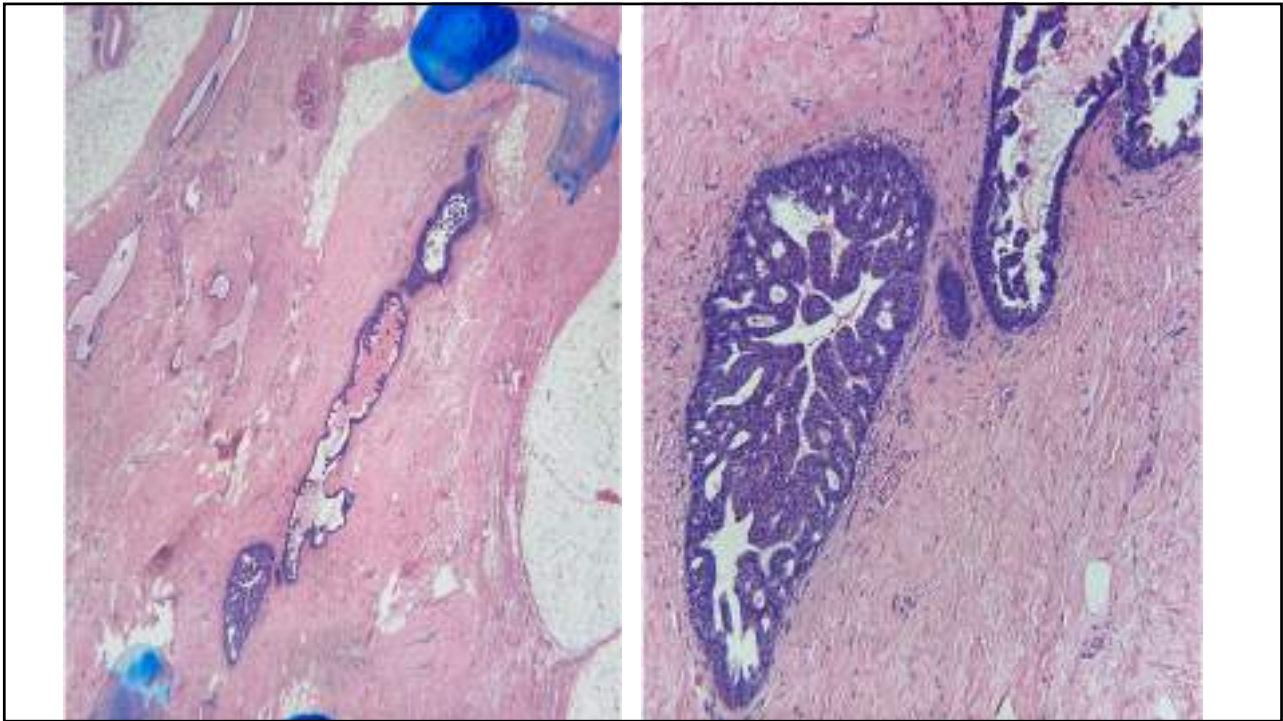


Pathology of Male Breast Cancer

- Similar histology to Female Breast Carcinoma
- More often ER+/PR+/HER2- than females
 - 80% male cancers ER/PR+
 - HER2 less common than in females but same clinical significance
- Androgen receptor expression seen in ~90%

62 year old male
with a 2 cm
palpable mass

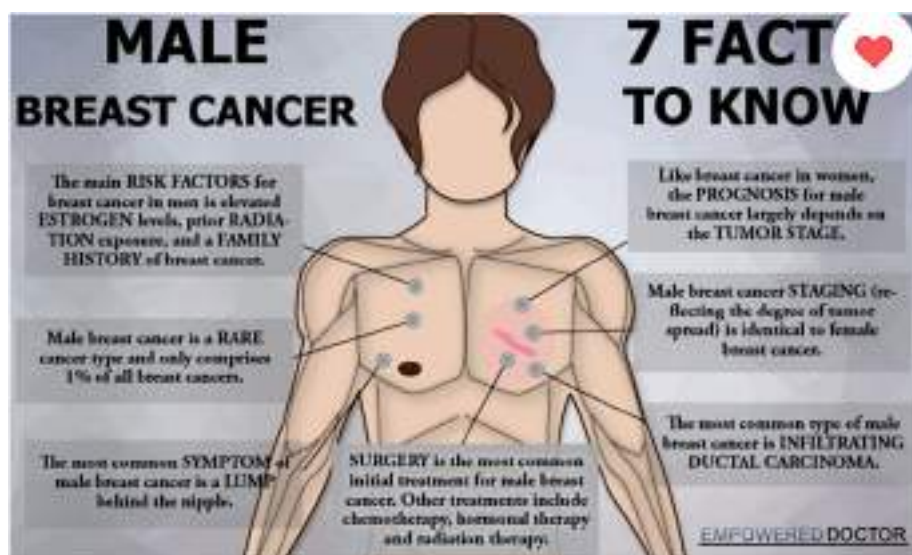




Pathology of Male Breast Cancer

- Similar prognosis when matched for grade and stage
- Often presents at higher stage

Stage is the most important
prognostic factor in breast cancer!



https://visual.ly/community/Infographics/health/male-breast-cancer-7-facts-know?utm_source=visually_embed

THE BOTTOM LINE

Do NOT ignore a breast mass
in a male