

A decorative graphic in the top right corner of the slide, consisting of several overlapping triangles and squares in various shades of blue, creating a geometric pattern.

Breast cancer quick!

## Abnormal mammogram

Spiculated lesion cancer or radial scar

Asymmetric density usually dense breast tissue

Microcalcs depends on size and shape and structure

Hypoechoic lesion cancer 10-20%

Complex cyst rarely cancer

Hyperechoic lesion hematoma/fat necrosis not cancer



## Work up

Always get tomo as screening (no additional cost now)

Diagnostic mmg/ultrasound (check nodes)

Ultrasound can rarely see calcs

Core biopsy (ultrasound vs stereo 3d now)

? When to stop screening



# Benign

Fibroadenoma check q 6 month mmg/us to make sure not growing

Excised >2 cm, palpable,

enlarging Fibrocystic disease

Usual ductal hyperplasia

? increase risk of breast cancer Gail says yes ??



## High risk lesions

Radial scar/sclerotic lesion

Papilloma

Atypia lobular/ductal 10-15% early cancer

LCIS

? excise not always ? check with pathologists

Refer to med onc for risk reduction meds



## Non invasive cancer

Pleomorphic lcis

Dcis

Partial mastectomy/xrt

Total mastectomy with sln



# Invasive cancer

Ductal

Lobular

Multiple ductal subtypes

Partial mastectomy with xrt vs mastectomy (+/- xrt)

Nodes sln vs axillary node dissection with reverse arm mapping



# What matters for treatment

Subtype ER/PR/her2

Ki 67 not all pathologists do but really is telling for prognosis

Oncotype/endopredict

Node positivity

Size of area involved and breast size

Genetics/family history

Health of patient





## Er positive

Low grade low ki 67 no chemo

? anti hormonal

? radiation if over 70 does reduce local recurrence no change in prognosis

? sln if over 70

Choosing wisely

What are the side effects ??



## Er negative/her2 positive

Pre op chemo if node positive or over 2 cm

Again division rate matters

Determines prognosis

Can add post op therapy(xeloda triple negative/Keytruda her2)

Reduce risk of mastectomy and/or axillary node dissection/lymphedema



# Genetics

## FAMILY HISTORY

Genetic counseling ? which test ? brca and hnpcc and pten

overlap Test a known cancer patient if still alive can test only that deletion

Do not test unaffected offspring unless they understand results are not helpful unless positive

If testing unaffected patient make sure has enough life and disability insurance

Explain to patients that there is yes, no, vus

Variant of unknown significance reclassified but takes years



# Genetics and breast cancer- TAKE FAMILY HISTORY

BRCA ovarian, pancreatic, melanoma, prostate (? uterine sarcoma) MEN too

ATM no radiation! Risk up to 70% for breast also pancreatic and prostate

HNPCC colon, uterine, gastric

MSH 2/6 colon, uterine, gastric

Chek2 aggressive breast cancers, thyroid, colon, prostate, kidney, uterine, ? radiation

MUYTH colon, gastric, thyroid

PALGB pancreatic, ? gastric up to 35% risk of breast by age

70 CDH1 lobular subtype and gastric cancer

PTEN thyroid,uterine,kidney, colorectal, cholangiocarcinoma, macrocephaly



## Other risk factors

Alcohol

Obesity

Not active

No kids/no breast feeding

Ocps premenopausal triple negative ? depo

HRT combo yes but not for four years also present later stage

Breast implants -lymphoma but also hard to image upper/outer



## Increased risk

Q 6 month breast exams

Mri vs screening ultrasound \$\$, false positive

Risk reduction meds- side effects

Increase activity

Bilateral total mastectomy never zero



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