

Vesalius SCALpel™ : Random Facts

Mammogram:

13% false positive, 20% false negative
70% of new breast cancers diagnosed by mammo
24% DCIS
10% called back, 10% of callbacks get Bx, 10% of Bx =Ca
lobular, mucinous, medullary, cystosarcoma hard to see
radial scar, fat necrosis mimic cancer
20% detected by BSE
5/1000 CBE detect cancer
80% of breast cancers ER+
70% of those responsive to hormone manipulation
20% of breast cancers HER2-neu+
IHC: protein overexpression
FISH: gene amplification
15% of unilateral, single duct bloody discharge malignant
33% of ADH core upgraded to DCIS on excisional bx
10% of women <40 with breast cancer will be pregnant
young women more ER-, worse prognosis
25% of new dx premenopausal
90% of local recurrences at lumpectomy bed
90% of recurrences found by CBE or patient complaint
ALND 30% lymphedema, SLN 5%

Nutritionally associated conditions:

essential FA: linoleic, linoleic: dermatitis, alopecia
ZN: “ plus loss of taste
Fe, Cu, vitE: anemia, neutropenia (Cu)
Chr: encephalopathy, neuropathy
Se: cardiomyopathy
glutamine: trophic for gut mucosa

Hyperparathyroid symptoms:

moans: headaches, lethargy, polydipsia, wt. loss
groans: GERD, pancreatitis, nausea, anorexia, constipation, dyspepsia
stones: renal hematuria, colic
bones: extremities mostly, osteopenia/porosis, path fractures,
10% subperiosteal resorp. phalanges
(psych): concentration, depression, insomnia, forgetfulness, confusion, psychosis

Malignant hyperthermia Rx:

stop agent
oxygenate 100%
dantrolene 2.5mg/kg
bicarb/alkalinize

glucose/insulin
cool
volume/saline
diuresis/lasix
tachycardia Rx

Charcot's triad (cholangitis)

fever/chills
jaundice
RUQ pain

Reynold's pentad

hypotension
mental status change

Non-pancreatitis causes of hyperamylasemia: perf. ulcer, ischemic bowel, SBO, renal failure, salivary gland inflammation, ectopic, ovarian tumor/cyst; ketoacidosis, macroamylasemia (kidney can't filter, low urine amylase)

Differential benign liver lesions

hemangioma: peripheral to central filling, 90% solitary; most common

adenoma: OCP assn., 30% rupture, no RE (Kupffer)/no nucleotide (Tc99) uptake; pregnancy rupture risk, malignant potential

focal nodular hyperplasia (FNH): central scar; Tc99 uptake; quick enhancement and washout; no malign. potential, observe

BRCA defective tumor suppressor

1 82% lifetime risk breast, 44% ovary; 30% of hereditary breast ca

2 10% of male breast cancers, colon cancer; 20% of hereditary breast Ca

FAP: loss autosomal dom. APC tumor suppressor; loss of 2 alleles; colon, gastric, thyroid

Gardner's: + osteoma, exostosis, desmoid

Turcot: + CNS (medulloblastoma)

HNPCC: loss series DNA/mismatch genes

type 1: colon only, 75% risk by 75

type 2: + endometrial, ovarian, breast, gastric, renal cell

Peutz-Jegher's: autosomal dom. hamartomas, most small bowel, obstruction, intussusception, bleeding, melanin spots, malignant potential

Cronkhite-canada: hamartomas without cancer

Li-Fraumeni: p53 tumor suppressor defect, sarcoma, breast (<1% of genetic breast ca), brain, adrenocortical, leukemia, gastric

Cowden: PTEN, hamartomatous colon polyps, breast (50% incidence of breast cancer, <1% of genetic breast Ca)

Klinefelter's: XXY, 20X male breast cancer

WT: Wilm's tumor, embryonal renal, aniridia, GU abnormalities

Rb1: retinoblastoma, sarcoma, brain, melanoma

CDKN2A: familial melanoma

neurofibromatosis type 2: meningioma, glioma

chemo side effects:

cardiotoxicity: adriamycin, doxorubicin

pulmonary fibrosis: bleomycin

liver, kidney: methotrexate, cisplatin (kidney)

hemorrhagic cystitis: cyclophosphamide

skin pigmentation: 5FU

trauma terrible trio: hypothermia, acidosis, coagulopathy

90% mort without damage control intervention, 60% with

GIST: interstitial pacemaker cells of Cajal

markers: CD34, CD117 (C-Kit proto-oncogene overexpression, tyrosine kinase receptor); PDGFR alpha

distribution: 65% stomach, 25% small bowel, 5% colon, 5% esoph.

Carcinoid: Neuroendocrine nterochromaffin cells crypts of Lieberkuhn

Pagett-vonSchrotter: subclavian/axillary v. thrombosis

Kassebach-Merritt: platelet trapping in large hepatic hemangioma

May-Turner: compression of L iliac v. by R common iliac a.

Stroke: 75% thromboembolic, 25% hemorrhagic

Sheehan's: hypovolemic/hypotensive infarction of hypertrophied pituitary in pregnancy

Budd-Chiari: hepatic V thrombosis/obstruction; 50% polycythemia or myeloproliferative disease assn.; ascites, liver failure

Felty's: rheumatoid arthritis, neutropenia, leg ulcer, splenomegaly