---SURGICAL ONCOLOGY---

I. Skin malignancies

#1 cancer in U.S. (40% of all cancers)
BCC 70%, rarely met
SCC 25%, may met
Melanoma 5%
Most pts >65; 3:1 male:female ratio; increased risk in immunosuppressed pts
80-90% of skin ca found on head, neck and back of hands
Marjolin's ulcer: develops in burn scars; rapidly lethal
Epidermoid carcinoma: develops in chronically draining skin sinuses or fistulas; highly malig

Basal cell carcinoma

70% of all skin ca
Rarely met, usu grow slow; grow microscopically well beyond visible lesion
Nodular BCC: smooth, dome shaped, waxy, pearly papule, telangect, central ulcer
Pigmented BCC: similar to nodular but pigmented; mistaken for melanoma
Morphealike/fibrosing BCC: indurated, yellow plaque, indiscrete borders, shiny/taut skin
Rx: Resect w/ 1cm margin; 1.5cm for morphealike; Mohs for difficult locations
May try cryotherapy if <0.5cm lesion but tumor may be left behind
Topical 5FU for superficial BCC
Px: Cure rate w/ excision is 95%
Pts w/ a single lesion: 20% chance of 2nd tumor w/in 1 year
Pts w/ mult lesions: 40% chance of having additional tumors

Squamous cell carcinoma

25% of all skin ca
#1 site: lower lip
Scaly, crusted, erythematous, raised lesion, central ulcer w/ surrounding induration, bleed
Usu very large before mets occur
Mets more likely if tumor occurs in site of thermal inj, osteomyelitic sinus, chronic ulcer
Mets also more likely in Bowen's dz or if lesions >8mm thick
Rx: Excision w/ 1cm margin; SLNB and poss LN dissection for poorly differentiated SCC
Cure rate: 95% for small lesions; If LN mets, most will die of dz

Melanoma

Causes 77% of all skin ca deaths
Sun exposure is a main cz, but not the sole cz
Higher incidence in lighter skin pts
Often occurs in legs of women, trunk of men
25% on head and neck, mostly in non protected areas
Location varies: in blacks 70% of melanomas occur on plantar surface (6% in whites)
50-60% arise from or near a benign nevi (benign nevi common, rarely become malig)
3-5% of pts w/ a melanoma have a 2nd melanoma
Malig melanoma s/sxs: ABCDE
2 growth phases: horizontal (lateral), vertical (deep)
---Types
Superficial spreading
70%; intermed malig
Equal incidence in males (back) and females (legs); usu in 40s
Radial growth phase is obviously elevated
Vertical growth phase heralded by palpable nodule

May be tan, brown, blue, black, or pink with satellite lesions and loss of skin creases
Lentigo maligna
10-15%; most benign
On sun exposed areas of older pts, females>males
Circumscribed area of tan, brown, or black pigmentation
Nodular
12%; most malignant type; men>women
Almost exclusively vertical growth phase
Blue, black lesion w/ palpable nodule
Acral lentiginous
Intermed malig
Palms and soles, subungual (streak or stain in nail)
---DDx
Junctional nevi: early in life, vary in size, light to dark brown, smooth w/ irreg edges
Coumpound nevi: any age, <1cm, black or brown, often w/ hair
Intradermal nevi: usu <1cm, warty or smooth, w/ coarse hairs
Blue nevi: usu<1cm, blue or black, smooth, well defined edges, on face, dorsal hand/foot, buttock
Seborrheic keratoses: usu >1cm, raised, warty, 'stuck on,' greasy
Dermatofibromas: dark brown, smooth, raised
---Dx
Irregularity in color, border, surface
Complete excisional bx is best; incisional bx is second best option
---Rx
Excision up to fascia w/ 1cm margins if <1mm thick; 2cm margins if 1-4mm thick
LN dissection if nodes palpable; No dissection if LN not palpable and lesion <1mm thick
SLNB in all other cases; if +, perform complete node dissection
Excision and RT for brain mets
---Px
Most important factors: thickness, ulceration, node mets, distant mets (skin, subq tiss, LNs)
Malignant melanoma spreads via blood and lymphatics
If <1mm thick, recurrence very low
If >4mm thick, recurrence and death extremely high
5 yr survival: stage I = 90%, stage IV = 10%

II. Lymphatic and soft tissue malignancies

Hodgkin's lymphoma
13% of lymphomas
Bi modal age distribution: late 20s, mid 70s
Incidence is decreasing
S/Sx: Asx cervical lymphadenopathy (~70% pts)
Fever, night sweats, weight loss >10%: "B sxs" = worse px
Supradiaphragmatic dz in 90% of young pts, 25% of elderly
Dx: CXR, excisional bx (cervical LN), bone marrow bx, CT abd (liver, spleen, retrop LNs)
Types: nodular lymphocyte predom, lympho rich, nod sclerosis (70%), mixed, lympho depleted
Reed- Sternberg cells
Cotswolds classification: A or B based on presence of systemic sxs
Rx: RT for early stage dz; chemo +/- RT for late stage
Px: Chemo achieves 80% cure
Risk of leukemia is 3% at 10 years after Rx

Non-Hodgkin's lymphoma

87% of lymphomas
Incidence is increasing, esp in HIV and immunosuppressed populations
S/Sx: Most pts are asx; 20% have B sxs
May have enlarged LNs or GI sxs (NHL tends to be disseminated)
Dx: CBC, LFTs, CXR, CT abd/pelv, bone marrow bx, LP (if med/hi grade, d/t ↑CNS dz)
Rx: Primarily treated with chem.
RT for local dz or cxs
Surgical resection for gastric or small bowel NHL
Px: Worse px if >60, B sxs, extranodal, bone marrow or GI involvement

Sarcoma

Rare (<1% of all cancers), mesodermal origin
>50 subtypes: malig fibrous histiocytoma (24%), leiomyosarc (21%), liposarc (19%)
Location: 50% lower limb, 16% upper limb, 10% thorax, 10% pelvis, 8% head/neck, 6% abdom
Many chemicals are risk factors: asbestos, agent orange, PVC, radiation (50x↑ risk)
Spread is hematogenous, #1 site = lungs; LN mets are rare; subq mets in late dz
Sarcomatosis and liver mets occur w/ peritoneal dz
Sarcomas tend not to invade, but may grow very large, causing compressive sxs
S/Sx: Pts often p/w h/o trauma to area but 1/3 pts are asx
Dx: Imaging, core bx (open if needed)
Difficult to dx on histology
Rx: Excision w/ 2cm margins; add RT if margins in doubt or not possible
Retroperit dz: may be impossible to completely resect; ~70% recurrence
Liposarcomas respond poorly to chemo or RT
With recurrence, may attempt RT if not already used
With lung mets, may attempt resection; poor response to chemo
Px: Determined by grade, location, size
Almost 100% recurrence if margins are +
Signs of neurovasc or GI compression/obstruction or lymphadenop = worse px
80% of recurrences occur w/in 2 years; confirm w/ imaging or FNAB
With mets, pts die w/in 12-18 months
F/U with CT chest Q6 months for 2 years
---Specific sarcomas
GIST: CD34, 117+; rx: resect + imatinib
Desmoid (aggressive fibromatosis): may respond to NSAIDs
Kaposi's sarcoma: #1 neoplasm in AIDS pts; d/t HHV8; may regress if immunosup stopped
In AIDS, begins in perioral mucosa; w/o AIDS, usu found in lower extremities
Rx: excision or local RT for small, localized lesions