Pigmented Skin Lesions & Skin Cancer

Nurse Practitioners of Oregon Conference
October 21, 2011

Susan Tofte, RN, MS, FNP-C
Assistant Professor
Dept of Dermatology
Oregon Health & Science University

Skin Cancers

• Actinic keratoses
• Basal Cell Carcinoma
• Squamous Cell Carcinoma
• Melanoma
• Keratoacanthoma
• Cutaneous Horn
• Clark’s Nevus

Skin Cancers

• Basal Cell Carcinoma
  ➢ 1 million cases/year

• Squamous Cell Carcinoma
  ➢ 250,000/year

• Malignant Melanoma
  ➢ 50,000/year
Treatment of Skin Cancers

- Cryotherapy
- Curettage & electrodessication
- Surgical excision
- Radiation
- Chemotherapy
- Photodynamic therapy
- Mohs Micrographic Surgery

Actinic Keratoses
Actinic Keratoses (AK)

- Represent earliest lesion in the development of squamous cell carcinoma
- Palpated easier than seen
- Rough texture like sandpaper
- Other signs of solar damage
- 1-10% chance of progressing into SCC

Treatment of AKs

- Topical therapy available
- Refer if:
  - Diffuse actinic keratoses
  - AK doesn’t resolve with LiqN2
  - Patient concerned about hypopigmentation/scarring
  - History of several skin cancers

Liquid Nitrogen

- Pros
  - Quick and effective
  - No compliance issues
- Cons
  - Painful
  - Hypopigmentation
  - Difficult for diffuse lesions
### Topical Therapy for AKs

- **Efudex 5% cream**
  - 5-fluouracil
  - 2-4 week course
  - Very irritating

- **Solaraze**
  - Diclofenac sodium 3%
  - Less irritating
  - 2-3 month course

- **Imiquimod (aldara)**
  - 2 x wkly for 16 wks

### Considerations for Topical Therapy

**Pros**
- As effective as liquid nitrogen
- Less painful
- Less scarring

**Cons**
- Need motivated patient for compliance
- Can be very irritating
- Close monitoring and reassurance
- Expensive
Non-melanoma Skin Cancers

Basal Cell Carcinoma (BCC)

- Arises from basal cells of the epidermis
- “Pearly” appearance
- Fair skinned individuals in sun exposed areas
- Usually slow growing
Basal Cell Carcinoma

- Nodular
- Pigmented
- Superficial
- Infiltrative
- Sclerotic (morpheaform)

Baseline Cell Carcinoma

PEARLY
TELANGECTASIA
SUN-EXPOSED AREAS
Basal Cell Carcinoma
Squamous Cell Carcinoma (SCC)

- Arises from keratinocytes
- Potential to metastasize

Etiology
- UV light (predominant)
- X-irradiation
- Chemical exposures (ie arsenic)
Treatment for NMSC
- Biopsy suspicious skin lesion
- BCC in-situ or low-risk treat w/ C&D or aldara or efudex
- SCC in-situ or low-risk treat w/ C&D or aldara
- BCC/SCC can be treated w/ excision (use 4mm margins on lesions <2.0cm)
- Photodynamic therapy (PDT)
- Refer for high risk recurrence areas
- Invasive, large lesions req MOHS
- Radiation therapy (head and neck)

Mohs Micrographic Surgery
- Skin cancer surgery
- Dr. Fredrick E. Mohs
- “micro” --microscopic examination
- “graphic” --tissue orientation is mapped
Indication for Mohs Surgery

- Large size
- Location
- Recurrent cancers
- Aggressive histology
- Ill defined borders

Mohs Micrographic Surgery

- Tangential excision
- Tissue specimen mapped
- Frozen section
- 100% of tumor margin examined
- Surgeon is the pathologist
Intraepithelial Neoplasia

- Squamous cell carcinoma in situ
- Premalignant w/ possible progression to invasive SCC
- Associated w/ smoking and oncogenic HPV

Intraepithelial Neoplasia; Clues to Dx

- Red, well-demarcated plaques
- Can be verrucous plaques
- Biopsy to rule out
  - LS&A
  - Zoon’s balanitis
- Treatment often surgical
- Imiquimod case reports
Melanoma

**ABCDEs of Melanoma**

A = asymmetry
B = borders
C = color
D = diameter
E = evolving
Melanoma Diagnosis

- When in doubt, cut it out
- Need excisional biopsy w/ 1-2 mm margins
- Sentinel lymph node biopsy for tumors greater than 1mm in depth
- Dermoscopy may aid diagnosis
THE "UGLY DUCKLING"
MELANOMA MIMICS
**Congenital Nevus**
- Nests of pigment cells in epidermis and dermis
- Cells large/unusually shaped
- Clinical features:
  - Skin colored to tan or brown
  - Solitary papules with smooth surfaces
  - Most present at birth, measures less than 1.5 cm

*CHECKS*
- MANY YEARS
- CAN BE VERRUCOUS
- BX IF RECENT CHANGE
- PHOTOGRAPH, MEASURE
Nevus Sebaceous

• Presents in childhood as oval or linear verrucous waxy plaque yellow-orange on face/scalp

• Evolves thru growth in childhood & puberty

• Males/females equally affected

• Treatment = surgical excision
Common in acral areas (hands, fingers) & face

- Appear as solitary, dull-red, firm nodule 5-6mm diameter
- Smooth surface, glistening or crusted & ulcerated
- Bleeds easily
- Most common in first 5 yrs of life
- Believed to be an abnormal healing response

**Pyogenic Granuloma**
Differential Dx PG

- Often mistaken for:
  - Hemangioma
  - Glomus tumor
  - Melanocytic nevus
  - Wart
  - Molluscum contagiosum
  - Malignant melanoma

Skin Cancer Deaths

- 10,000 deaths/year in U.S.
- 7,000 from Melanoma

Case Study
From The Wallace Medical Concern
Case Study

- Patient JM; 48 yo single Caucasian male
- Employed doing landscaping, lives with parents, assists with their care
- Past medical history; unremarkable
- Meds; none
- Height 5 ft 7in, Weight 158 lbs

Case study, cont

- October 2006 noticed small bump on scalp, possibly associated with trauma
- Area was red, then regressed
- Started increasing in size within 2-3 weeks and has steadily grown since
- Mild pain, OTC analgesics occasionally
- August 2007; Saw PCP on Monday (reassured not cancer), came to WMC following Thursday for Dermatology consult
What to do now?

- Invited pt to come to morphology conference
- Evaluated by faculty and residents, two biopsies were done, 1 shave 1 punch
- Pt set up in OHSU system with financial assistance
Dermatopathology

• Result shows undifferentiated malignant neoplasm—sent to hematopathology for further studies

• Hematopathology: B-cell with predominately large cells, primary follicular center B-cell lymphoma

Final Diagnosis

• B-cell lymphoma with predominantly large cells

• Additional note: “if no concurrent systemic involvement, this can be classified as a primary cutaneous follicular center B-cell lymphoma, otherwise it may represent a diffuse center B-cell lymphoma w/ skin involvement. A primary cutaneous follicular center B-cell lymphoma is often assoc w/ an indolent clinical course and great sensitivity to local radiotherapy.”

Primary Cutaneous Follicular Lymphoma

• Pathogenesis of primary B-cell lymphoma is unknown

• Derived from B-lymphocytes in various stages of differentiation, mostly low-grade malignancies

• Account for 20-25% of cutaneous lymphomas

• Clinically patients present with single or multiple papules, plaques or nodules w/ surrounding erythema in one anatomic region

• Present on trunk, head, neck (vast majority on scalp), or on the lower extremities

• More common in males
Referral

- Referred to heme-onc for evaluation and treatment
- CT scan of abdomen & pelvis were negative for metastasis
- PET scan was negative
- Referral to radiation oncology
Treatment

- Estimated that he would need radiation treatment 5 days per week for 5 weeks
- Began receiving localized radiation treatments daily on October 31, 2007
- Tumor is approximately one-third smaller after only 7 treatments
- Expected side effects over time are fatigue, burning/sensitivity, xerosis
- Prognosis is excellent!
Wallace Medical Concern

Wallace’s downtown Portland Clinic
Open Thursday evenings from 6:30 p.m. to 9:30 p.m.

Inside the Old Town Clinic
727 West Burnside
Portland, OR 97209
Phone (503) 489-1760