Lumps and Bumps: An Organized Approach to Diagnosis and Management

Tammy Pifer Than, MS, OD, FAAO
UAB School of Optometry
tthan@uab.edu

References
  - Wolff & Johnson
  - 2009
  - 1500 photographs
    - $83 amazon.com
- www.dermnet.com
- www.dermatlas.net

Introduction
- Types of Lesions
  - Benign
  - Premalignant
  - Malignant
- Diagnosis
- DDX
- Treatment options

Structure of Skin
- Epidermis
  - Stratum Germinativum
  - Stratum Spinosum
  - Stratum Granulosum
  - Stratum Corneum
- Dermis
- Subcutaneous Fat

Squamous Papilloma
- aka skin tags
- aka acrochordons
- epidermal hyperplasia
- skin-colored or hyperpigmented
- F > M

Squamous Papilloma
- single or multiple
- often pedunculated
- common sites:
  - neck
  - axilla
  - eyelids
**Squamous Papilloma: Removal**

- **Indications**
  - cosmesis
  - visual disturbance
  - excisional biopsy

**Squamous Papilloma: Removal**

- autoamputation
- chemical cautery
  - trichloroacetic acid
  - excision
  - scissors
  - scalpel
- laser

**Molluscum Contagiosum**

- poxvirus
- umbilicated papules
- 2-5 mm
- skin-colored to pearly white
- may have red base
- M > F

**Molluscum Contagiosum**

- sites
  - neck
  - anogenital
  - eyelid
- Spread to eye
  - children: autoinoculation
  - adults: sexual contact

**Molluscum Contagiosum: Management**

- may resolve on own
- surgical excision
- liquid N\textsubscript{2}
- light electrocautery
**Sebaceous Cyst**
- retained sebum
- yellowish
- capsule moveable under skin
- more common in elderly
- remove for cosmetic reasons

**Sudoriferous Cyst**
- Sweat gland cyst

**Milium**
- 1-2 mm epidermal cyst
- white - yellow
- sites: eyelids, cheeks, forehead
- treatment:
  - incision and expression

**Sebaceous Cyst**
- remove by total excision
- contents are expressed with cotton swabs
- cauterize area

**Cutaneous Horn**
- hyperkeratotic growth
- usually several mm in length
- biopsy
- often associated with:
  - actinic keratosis
  - verruca
  - basal cell carcinoma

**Seborrheic Keratosis**
- sun-exposed areas
- > 30 years old
- well-circumscribed plaque
- “stuck on”
- tan - brown - black
Seborrheic Keratosis

- Benign, but make sure it’s not...
  - actinic keratosis
  - basal cell carcinoma
  - malignant melanoma

Seborrheic Keratosis: Management

- excision
- CO₂ laser
- electrocautery
- cryotherapy

Dermatosis Papulosa Nigra

- variant of seborrheic keratosis
- African American patients
- occurs on cheeks
- small, dark, pedunculated papules
- treatment:
  - scissor excision
  - same as seborrheic keratosis

Keratoacanthoma

- initial: dome-shaped elevation
- then: center becomes keratin-filled crater
- rapidly grows for short time then stabilizes
- isolated lesion

Keratoacanthoma: Management

- may regress in 1 year
  - scarring likely
- excision (biopsy)
- cryosurgery
- 5-fluorouracil injections
**Common Acquired Nevus**
- aka mole
- benign neoplasm of melanocytes
- appear early in life
- some disappear later in life
- may have coarse hair
- minimal risk of malignancy

**Benign Lesions...**
- size
- color
- other characteristics
- photograph
- monitor for change

**Premalignant Lesions**

**Dysplastic Nevus**
- bigger than “the mole”
  - usually >6 mm
  - histologically different than “the mole”
  - later in life than “the mole”
- asymmetric
- papulomacular lesion
- significant malignancy potential

**The good, the bad, the ugly...**
- H: history, hair
- A: avascular, asymmetry
- B: borders, bleeding
- C: color, change
- S: size
Actinic Keratosis

- aka senile keratosis
- aka solar keratosis
- 1.3 million / year
- older, fair-skinned patients
- sites: face, neck, scalp, arms
- “felt before seen”

Actinic Keratosis

- red macule/papule -> plaque with yellow scales
- may need reclassified
  - solar keratotic intra-epidermal squamous cell carcinoma
- significant malignancy potential
- www.treatak.com

Actinic Keratosis: Treatment

- sunscreen
- cryotherapy
- surgical excision
- laser
- 5% Efudex cream (5-fluorouracil)
- Solaraze (diclofenac)
  - bid for 60-90 d
- 5-aminolevulinic acid (ALA)

Actinic Keratosis: Treatment

- Aldara cream (5% imiquimod)
  - 3M Pharmaceuticals
  - immune response modifier
  - MA?
- indications: AK, sBCC, genital warts
- AK
  - up to 2” x 2” area
  - 2 times / week x 16 weeks
  - qhs
  - ~ $170 for 12 packets

Actinic Keratosis Treatment

- Picato® gel (LEO Pharma)
- ingenol mebutate
  - 0.015%, 0.05%
- an inducer of cell death indicated for the topical treatment of AK
  - MA?: PK?
- Face and scalp → 0.015% QD x 3 days
Congenital Nevus
- usually born with it
- plaque with coarse hairs
- isolated lesion
- management
  - excision / graft
  - lifelong FU

Lentigo Maligna
- aka Hutchinson’s Freckle
- sun-induced
- fair-skinned, older individuals
- dark lesion
  - irregular borders
  - irregular pigment

Malignant Lesions
- Incident
  - 1/6!
- ulceration
- loss of hair / lashes
- bleeding with minor trauma
- change
- altered sensation

Basal Cell Carcinoma (BCC)
- neoplastic change in epidermal basal cells
- 900,000 / year
  - 550,000 male
- most common skin cancer
  - 80-90% of lid malignancies
- 10% on eyelids
- 20% on nose
- slowly grows by extension
Basal Cell Carcinoma

- Nodular Type
  - raised, pearly nodule
  - firmer than MM
  - telangiectasia

- Nodular Ulcerative Type
  - similar to nodular
  - central ulceration

- Sclerosing Type
  - aka Morpheaform
  - firm, minimally elevated
  - aggressive
  - more than meets the eye

BCC: Management

- excision
- cryotherapy / electrocautery
- imiquimod 5% cream
  - superficial type only
  - 5x/wk x 6 weeks
- Mohs' procedure
  - microscopically controlled surgery
  - gold standard
- monitor every 3 months
- Excellent prognosis

Squamous Cell Carcinoma (SCC)

- predisposing factors:
  - sun, ionizing radiation
  - carcinogens, chronic skin lesions
- scaly lesion -> induration -> dermal invasion
- no typical appearance
- precursor or de novo
- may metastasize
Squamous Cell Carcinoma

- **DDX:**
  - keratoacanthoma
  - BCC

- **Management:**
  - biopsy
  - excision / cryotherapy
  - Mohs' procedure

- **Prognosis…**

Malignant Melanoma (MM)

- low incidence but high mortality rate
  - ↑ 5%/year
- radial and vertical growth phases
- early diagnosis is essential

Lentigo Maligna Melanoma (5%)

- comes from lentigo maligna
- papulomacule lesion
- most common MM on the face
- long radial growth phase
- least aggressive MM

Superficial Spreading MM (70%)

- isolated lesion
- mixture of colors
  - Hallmark
- unpredictable growth

  - younger patients!

Nodular Malignant Melanoma (15%)

- “Blueberry-like” lesion
- can arise from pre-existing nevus
- black, blue, red, or amelanotic
- pedunculated variant
- immediate vertical phase
- most frequently misdiagnosed MM

Acral-Lentiginous Melanoma

- most common MM in African Americans and Asian Americans
- soles, palms, fingers, toes
- more aggressive than LMM
Malignant Melanoma: Analysis

- Tumor type?
- Thickness?
- Staging:
  - I, II, III: local disease
  - IV: enlarged local lymph nodes
  - V: clinical evidence of dissemination

Malignant Melanoma

- Management:
  - biopsy
  - excision / reconstruction
  - irradiation
- Prognosis (5 year survival rate)
  - Epidermis only -> 98%
  - Reticular dermis-> 78%
  - Subcutaneous tissue -> 44%

Managing Lumps & Bumps

- Look / Educate / Monitor
- If in doubt, refer it out!
- AAD: annual complete skin exam
- Skin Cancer Foundation: annual exam
- ACS:
  - 20-39: every 3 years
  - 40 or above: every year