Lumps and Bumps: An Organized Approach to Diagnosis and Management

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Disclosure
- Nothing to disclose

References
- Fitzpatrick's Color Atlas & Synopsis of Clinical Dermatology 8th Edition
  - Wolff, Johnson, Saavedra and Roh
  - 2017
  - >1000 photographs
- 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

Keloids
- "Overachiever" at skin repair
- predisposed individuals
  - 20-30s
  - avoid elective surgery
  - can be treated but difficult
**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
  - RF
- laser

**Verrucae: The Wart**
- human papilloma viruses
- 50+ types
- epidermal hyperplasia
- skin-colored
- F > M
- often have narrow bases
**Verrucae We May See...**

- verrucae vulgaris
- verrucae plana
- filiform

**Verrucae: Management**

- may go away - in 2 years!
- cautery (electro or chemical)
- surgical excision
- argon laser

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**The efficacy of duct tape vs cryotherapy in the treatment of verruca vulgaris (the common wart)**

- Focht DR 3rd, Spicer C, Farchok MP.

- Duct tape occlusion therapy was significantly more effective than cryotherapy for treatment of the common wart
  - 85% vs 60%
  - Most within 1 month

**New Alternative Combination Therapy for Recalcitrant Common Warts: The Efficacy of Imiquimod 5% Cream and Duct Tape Combination Therapy**

- Sun Yae Kim, Sung Kyu Jung, Sang Geun Lee, Sang Min Yi, Jae Hwan Kim, Il-Hwan Kim

- Imiquimod 5% cream and duct tape occlusion combination therapy is an effective alternative treatment modality for the treatment of the common verruca.

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**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

- Eyelid
  - conjunctivitis
  - follicular
  - SPK
  - injection

Molluscum Contagiosum: Management

- may resolve on own
- surgical excision
- liquid N₂
- light electrocautery

Sebaceous Cyst

- retained sebum
- yellowish
- capsule moveable under skin
- more common in elderly
- remove for cosmetic reasons

Sebaceous Cyst

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

Sudoriferous Cyst

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

Cutaneous Horn
Pyogenic Granuloma
- soft fragile red nodule
- arises after trauma
- sites: mouth, face, fingers, conjunctiva
- management:
  - surgical excision
  - shave excision with electrocautery
  - topical steroids?
- may recur

Seborrheic Keratosis
- sun-exposed areas
  - face and trunk
- > 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
- no malignancy potential
- occurs in elderly, fair-skinned individuals
- sites
  - cheeks
  - nose
  - ears
- DDX: squamous cell carcinoma

Keratoacanthoma: Management
- may regress in 1 year
  - scarring likely
- excision (biopsy)
- cryosurgery
- 5-fluorouracil injections

Strawberry Nevus
- capillary hemangioma
- usually begins during first few months of life
- enlarges for several months
- begins flat then becomes nodular
- resolution by age 5
  - may have complications

Strawberry Nevus: Management
- reassurance
- leave alone
- local steroidal injections
- laser
- cryotherapy
- Latesté
  - Beta-Blockers

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

Common Acquired Nevus
- junctional
  - flat
- compound
  - somewhat elevated
- intradermal
  - elevated, dome-shaped
Conjunctival Nevus
- benign neoplasm of melanocytes
- usually near limbus
- well-delineated
- may not occur until adulthood
- monitor

Melanosis
- excessive melanotic pigment
- Congenital
  - pigment flecks
  - usually near limbus
- Primary Acquired
  - if unilateral → significant malignancy potential

Common Acquired Nevus: Management
- size
- color
- other characteristics
- photograph
- monitor for change

Be suspicious if:
- H: history, hair loss
- A: asymmetry
- B: borders, bleeding (vascularized)
- C: color, change
- S: size

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

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

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 20 x 20 area
  - 2 times / week x 16 weeks
    - qhs
    - 8 hours
  - ~ $170 for 12 packets

AK - Treatment

- Picato® (ingenol mebutate)
  - inducer of cell death
  - MA? unknown
  - QD
    - 0.015% - face and scalp; 3 days
    - 0.05% - rest of body; 2 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
- most common skin cancer
  - 80-90% of lid malignancies
- 10% on eyelids
- 20% on nose
- slowly grows by extension
- No precursor

Basal Cell Carcinoma

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

- Nodular Ulcerative Type
  - similar to nodular
  - central ulceration

Basal Cell Carcinoma

- Superficial Type
  - scaly red plaque
  - least aggressive
  - DDX: psoriasis, seborrheic keratosis

Basal Cell Carcinoma

- 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
  - Adjunct therapy
- 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