See spot change: Lesion identification and management in primary care

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Learning objectives

- Discuss malignant and benign skin lesions commonly seen in primary care.
- Identify common treatments and surgical procedures utilized for management.
- Review criteria for referral to appropriate specialty.

Commonly seen malignant skin lesions in primary care.

- 1) Basal cell carcinoma
- 2) Squamous cell carcinoma
- 3) Melanoma
Commonly seen non malignant lesions

- Acrochordon (skin tag)
- Keloid
- Hypertrophic Scar
- Epidermal inclusion cyst
- Lipoma
- Seborrheic Keratosis

Skin Cancer Screening Recommendations from Various Organizations

**ORGANIZATION**
- American Academy of Dermatology; Skin Cancer Foundation; and American Cancer Society
- U.S. Preventive Services Task Force and American Academy of Family Physicians Policy Recommendation for Periodic Health Examination

**RECOMMENDATION**

- Annual complete skin examination for all patients
- Age 20 to 39 years: complete skin examination every three years
- Age 40 years and older: annual complete skin examination
- There is insufficient evidence to recommend for or against routine complete skin examination. Physicians should be alert to potentially malignant lesions when examining patients for other reasons, especially when they have risk factors for melanoma, and should consider referring patients with marker lesions (i.e., atypical nevi) to a skin cancer specialist.

Non Melanoma and Melanoma Skin Cancer

- History and Physical
- With evaluable lesions that may be non-healing or present for an extended period of time, it is helpful to obtain the following:
  - Ethnicity and skin color (fair, olive, African American)
  - Lifetime sun exposure (frequent vs. intermittent)
  - History of sunburn as a child or adult
  - Tanning bed use
  - Smoking or chewing tobacco use
  - Occupational exposure
  - Immunosuppression or organ transplantation (renal transplant patients have a 253 fold increase in the risk for squamous cell carcinoma)
  - History of radiation treatment for cancer or previous PUVA or UVA treatment for psoriasis
Basal Cell Carcinoma

- Basal cell carcinoma is the most common invasive malignant cutaneous neoplasm. It is traditionally diagnosed by clinical identification and shave or scoop biopsy.
- The most common presenting complaint is a bleeding or scabbing sore that heals and recurs.
- Although it will not metastasize, if left untreated it will advance by direct extension and destroy normal tissue causing significant damage.

Basal Cell carcinoma

- Basal cell carcinoma
  - Inferior lateral canthus
- Nodular Basal Cell Carcinoma
  - Left cheek / sideburn area
- BCC
  - Note the rolled borders

BCC
- these folks took tanning to a whole new level

Actinic Keratosis

Management – single lesions of Actinic Keratosis
- Cryotherapy
- CO2 laser resurfacing, dermabrasion and chemical peels
- Electrodesiccation and Curettage
- Surgical excision
Management of multiple or diffuse actinic keratoses

- Field Directed therapy — total sun avoidance is recommended.
- 5-fluorouracil — topically applied chemotherapy agent
- Imiquimod — topically applied chemotherapy agent
- Picato (ingenol mebutate) — plant based (Euphorbia pulegioides) from Australia

Management of multiple or diffuse actinic keratoses (con’t)

- PDT – photo dynamic therapy — topical chemotherapy provides much better histologic response
- Diclofenac (Solaraze) — BID for 60 – 90 days — great placebo control studies in transplant patients out of Germany: a complete clearance of AK lesions was achieved in 41% (7/22) compared to 0% (0/6) in the vehicle group. At 24 months 60% of the patients had recurrent AKs but there were 0 SCC within the group.

Squamous Cell carcinoma

- invasive
- Squamous cell carcinoma
- in situ
- Squamous cell carcinoma
- Of the lower right lip
Management of Basal cell and Squamous Cell carcinoma

- Mohs procedure
- PDT
- Electrodesiccation and curettage
- Surgical Excision
- Erivedge (vismodegib)

Malignant Melanoma

- Malignant melanoma is a cancerous neoplasm of pigment forming cells, melanocytes, and nevus cells.
- Clinically its hallmarks are: irregularly shaped and pigmented patches, papules or plaques.
- Melanoma can arise from a pre-existing lesion or de novo. There is no difference in the survival rate, but melanomas arising from a pre-existing lesion are more commonly found on the trunk, in younger individuals, and is more likely to be superficial spreading.
- The earlier melanoma is diagnosed the better the chances of complete surgical eradication.
- Down and dirty - New research shows that having more than 11 nevi on one arm can indicate an increased risk for melanoma and patients can be appropriately advised to follow up with yearly skin exams.

Melanoma

- Cutaneous melanoma types:
  - Superficial spreading melanoma
  - Nodular melanoma
  - Acral lentiginous melanoma
  - Lentigo maligna melanoma
Epidemiology and Pathogenesis

- Melanoma is the fifth most common cancer in men and the sixth most common cancer in women.
- 1 in 50 Americans will develop melanoma in their lifetime for historical perspective, in 1935, the risk was 1 in 1500. The majority of melanoma in the US is diagnosed in the 18-50 year old age group.
- Patients with acute, episodic exposures to sunlight have a greater chance of developing melanoma than those with continuous exposure in either adulthood, adolescence or via occupational exposure.

ABCDEs of identifying characteristics.

- A – asymmetry
- B – Border irregularity
- C – Color variegation
- D – Diameter > 6mm or approximately the size of a pencil eraser
- E – Evolution or change

Lesions can be red, white, blue, have notched borders or a papule or nodule within it.

Ugly duckling rule – 10% of melanoma do not follow the traditional rules. When a patient presents with any pigmented lesion that appears different from other nevi, it should be biopsied.

Malignant Melanoma
Melanoma of the Lip

Superficial spreading melanoma

- 70% of ALL cutaneous melanoma
- Location: Most commonly found on the trunks of men and the extremities of women (questionable correlation with intermittent sun exposure)
- Asymmetrical presentation with variation in color and border irregularities are common
- Papular or nodular component to the lesion may suggest a deeper invasion
- Can arise from preexisting moles

Nodular melanoma

- Nodular melanoma comprises 7-20% of invasive melanoma
- Occurs most often in the fifth or sixth decade and more often in men than women 2:1
- It does not conform to the usual pattern – it occasionally flesh colored and resembles a flesh colored nevi or basal cell carcinoma. It is most frequently misdiagnosed as a blood blister, hemangioma, nevus, seborrheic keratosis, or dermatofibroma.
- They have rapid growth patterns and tend to ulcerate.
Lentigo Maligna Melanoma

- 4 – 15% of melanomas
- Located on the head, neck, arms and sun damaged skin
- Slow growing: 5 – 20 years
- Most commonly presents in the sixth or seventh decade
- Clinically appears as a brown to black or blue to black nodule

Acral lentiginous melanoma

- 2 – 7% found in Caucasians
- 30 – 73% of melanomas in African American, Asian and Hispanic
- Located on the palms or soles as well as within the proximal nail fold

Management of melanoma

- A punch biopsy is performed and lesions are micro staged by a pathologist. If there is extension to the border, a wider excision is indicated. Breslow thickness, ulceration status, mitotic rate, peripheral and deep margin status, anatomic level of invasion and tumor infiltrating lymphocytes are all factored into the staging process.
- Surgical margins for invasive melanoma should be at least 1 – 2 cm clinically measured around the primary tumor.
- The decision to perform sentinel node biopsy is based on clinical staging. Pathologic stage 0 – IA do not routinely need node biopsy.
Acrochordon (skin tag)

- Frequently found in areas of rubbing
- Characterized by multiple round, black, or oval exophytic lesions attached by short broad to narrow stalks.
- The most frequent area we see these in are the axilla (48%).
- Correlation with patients that have T2DM, obesity, hyperlipidemia, and adenomatous polyps. No causation noted in studies.

Pigmented skin tags and non pigmented
Dermatosis Papulosa Nigra

Keloid vs Hypertrophic scar

- Caused by injury or surgery
- Hypertrophic Scar – inappropriately large but remains confined to the wound site and in time regresses.
- Keloid Scar – extends beyond the margins of injury and are often symptomatic (tenderness, pain, hyperesthesia).
- Histologically keloid scars have large collagen bundles and hypertrophic scars do not.

Keloid Scar
Epidermal Inclusion Cyst

- The common epidermal or sebaceous cyst occurs primarily on the face, back, base of the ears, chest, and back, but can occur on any skin surface.
- The cyst wall is lined with stratified squamous epithelium which produces keratin.
- They may vary in size from a few millimeters to several centimeters.
- Treatment – fluctuant and inflamed cysts must be excised and evacuated. If the cyst wall or sack is not excised, there is a possibility that the cyst can recur.
- Antibiotics are not usually necessary for non-inflamed draining cysts.

Epidermoid cyst

- Lipomas are freely mobile, non-pulsatile, exophytic skin masses.
- Usually are non-tender, doughy feeling.
- They are non-malignant, but can be excised if they are enlarging, causing pressure on a nerve or blood vessel.
- Also called “fatty tumors” by some.
- They can be quite large.
An advanced basal cell carcinoma on the nare / nasal ala

Significant retraction and destruction of the surrounding tissue.
In the pipeline

Sunscreen – Scientists out of Yale have developed a method for encapsulating padimate O creating a bio adhesive nano particle that adheres to the stratum corneum and does not absorb into the skin. It's water resistant, but comes off with towel friction.

Field treatment for actinic keratosis - Low-dose 5-FU/SA is an effective and well-tolerated treatment option licensed for the lesion-directed treatment of mild-to-moderate hyperkeratotic AK lesions and currently under investigation for field-directed treatment.

Europe has developed guidelines for the treatment of actinic keratosis recently and expect the US to adopt similar guidelines in the next couple years.

Clinical snapshot

- If you suspect a non melanoma skin cancer on evaluation, shave or scoop biopsy is appropriate for a suspected melanoma or a sentinel nevus biopsy, which is recommended to obtain tissue which feels “palpable” or abnormal.
- Encourage all patients to utilize chemical free sunscreen. Benefits of wearing chemical free sunscreen outweigh the slight risk of photon damage from UV and UV rays in the absence of a better option. SPF 30 – 50 is recommended. Sunless tanning lotion prevents but does not provide protection against UV / UVB radiation.
- Follow up for patients who have had BCC or SCC treated should be evaluated once yearly with a full body skin exam. Patients with a history of melanoma should be evaluated with full body skin exam every 3 months for the first year then every 6 months or yearly thereafter.
- Patients who have greater than 11 nevi on one arm on physical exam should be advised to obtain yearly skin checks.

References