Detection and Treatment of Non-Melanoma Skin Cancers

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Basics of Skin Cancer

- Large majority caused by sun exposure
- Often sun exposure before age 20
- Persons who burn easily and tan poorly are at greatest risk

Sunscreens- Australian study randomized residents to daily use vs discretionary use between 1992 and 1996
- Risk for developing any melanoma reduced by 50% and invasive melanoma risk reduced by 73%
- Same trial also showed reduction of risk of developing squamous cell cancer

*Green et al. J Clin Oncol 2011 Jan 20; 29:257*
Vit D controversy

- Intermittant weekly UVB exposure is most convenient source of vit D.
- Sun exposure causes cancer
- Supplement Vit D with food/vitamins until more is known

Tanning Beds

- International Agency for Research on Cancer
- Comprehensive metaanalysis found that risk of melanoma (skin and eye) increases by 75% when tanning begins before age 30.
- Cite this to your young patients


“I’m Here for a Skin Check”

- Can screening by Primary MD reduce morbidity/mortality from skin cancer?
- Hard to do study-need to follow 800,000 persons over long period of time to determine this-studies not done
Bottom line:

- Not enough evidence for or against to advise that patients have routine full body exams BUT
- Know risk factors and incorporate exam into full physical and teach patients what to look for

Non-Melanoma Skin Cancers

- Basal cell carcinoma (BCC)
- Actinic keratosis (AK)
- Squamous cell carcinoma (SCC)
  - Keratoacanthomas

Baseline Cell Carcinoma (BCC)

- Who is at Risk?
  - Age 20+
  - Fair-skinned persons
  - Sun-exposed sites
    - over 50% on face
Diagnosis of BCC: Shave or Punch Biopsy
Differential Diagnosis of BCC

- Intradermal Nevus
- Sebaceous hypersplasia
- Fibrous Papule (angiofibroma)
- Eczema
- Melanoma
Recommended Treatment of BCC

- Surgical excision (head and neck)
- Curettage and desiccation (trunk)
- Radiation therapy (debilitated patient)
- Microscopically controlled surgery (Mohs)
  - Recurrent/sclerotic BCC’s
  - BCC’s on eyelid and nasal tip

Aldara (Imiquimod)

- Topical therapy designed for wart treatment
- Upregulates interferon/ down regulates tumor necrosis factor/works on toll like receptors
- Seems to have efficacy in superficial BCC’s
- Do Not use in BCC’s that are nodular or invasive
- Biopsy to confirm diagnosis BEFORE treatment

Treatments NOT Recommended

- Cryotherapy
- Topical chemotherapy
  - 5 Fleurourical (Efudex)
- Radiation therapy (good surgical candidate)
When to Refer

- It depends on your surgical skills
- > 1 cm
- Sclerotic BCC
- Recurrent BCC
- Eyelid BCC

Actinic Keratosis (AK)

- Who is at risk?
  - Over age 35-40
  - Fair-skinned persons
  - Sun-exposed sites
    - Face, forearms, hands, upper trunk
    - History of chronic sun exposure

Clinical Features of AK

- Red, adherent, scaly lesions, usually < 5mm
- Sandpapery, rough texture
- Tender when touched or shaved
- Thick, warty character (cutaneous horn)
Diagnosis of AK

- Diagnosis
  - Clinical features
  - Shave or punch biopsy
- Differential Diagnosis
  - BCC/SCC
  - Seborrheic keratosis
  - Wart
Treatment of AK

- Cryotherapy-goal is 2x15 sec thaws
- Topical chemotherapy/chemical peel
  – Efudex (5FU crème) 2x’s/day x 6 wks or Imiquimod-3X’s /wk and 3 mos.
Photodynamic therapy

- Place photosensitizer on skin and then use light therapy-increases absorbency of light
- Evidence that it changes histologic features of photodamage and changes expression of oncogenes

Uses in:
- Actinic keratoses
- Basal cell cancers
- Superiority studies being evaluated
- Bagazgoitia et al BJD 2011 July

Squamous Cell Carcinoma (SCC)

- Who is at risk?
  - Age 50+
  - Chronic sun exposure
    - Head, neck, lower lip, ears, dorsal hands, trunk
  - Special circumstances
    - Immunosuppression (organ transplant)
    - Radiation therapy

Clinical Features of SCC

- Papule, nodule or tumor
- Non-healing erosion or ulcer
- Cutaneous horn (wart-like lesion)
- Fixed, red, scaling patch/plaque (Bowen’s-SCC-in-situ)
Differential Diagnosis of SCC

- Actinic keratosis
- Wart
- Seborrheic keratosis
- BCC
- Eczema or psoriasis
How to Diagnose

- Punch or excisional/incisional biopsy
- Shave biopsy for flat, non-elevated lesion
**Treatment of SCC**

- **Recommended treatment**
  - Excision
  - Radiation therapy (in debilitated patient)
- **Treatments NOT recommended**
  - Curettage and desiccation
  - Topical chemotherapy

**When to Refer**

- SCC’s may metastasize
- Low threshold for biopsy and referral
- Regularly check draining lymph nodes
- High risk SCC’s

**High-risk SCC’s**

- Lip
- Temple
- Immunocompromised host (i.e. organ transplant)-65x increased risk of SCC’s
- Area of previous radiation therapy
Keratoacanthomas

- What are they? - self-healing SCC’s
- Look like SCC’s but history is that they come up quickly
- Biopsy to rule out SCC
- Sometimes pathologist cannot tell the difference
- Treat by injecting methotrexate, 5 FU - but close follow-up to make sure that tumor regression is evident - if not, excise like SCC