Common Dermatologic Conditions in Aging Skin

Toby Maurer, MD
University of California, San Francisco

The Aging Skin

Normal maturation and sun exposure

- Too much-
  Tumors, lentigines, seborrheic keratoses, leg veins, hair, muscle tone
- Too little-
  Collagen, fat and elastic tissue

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

The 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
  Even though tanners knew the risk, they still used tanning beds-prohibit tanning beds-Finley J Surg Onc 2015

Tanning Beds
“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

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

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

Photodynamic Therapy

- Apply paint that increases photosensitivity/absorbance so that laser can destroy AK’s. Doing it with sunlight and even greenhouse light in developing countries.

Diagnosis of BCC: Shave or Punch Biopsy
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
  - Recurrent widespread BCC-oral Vismodegib

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

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)
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)

METASTATIC Disease:
  Cetuximab/EGFR blockers
  PD-1 inhibitors

Melasma

• Hyperpigmentation of cheeks, chin, forehead
• Seen in pregnancy and in hormone replacement
• Also seen in females and males without hormone treatment
• Treatment: Hydroquinone 4%, (Solaquin forte) sunscreen, Trilumina (retinoid, hydroquinone and steroid)
• 4 months on; 4 months off to avoid ochrenosis

• Follow-up for SCC-1-3 months for 2 yrs then q 4-6 months for 5 yrs
**Perioral Dermatitis**
- Characterized by small papules and pustules
- In 30-40 year olds, centered around mouth and eyes (perioral/orbital dermatitis)
- These patients may never have had history of acne as teens
- Tx: oral antibiotics (doxycycline) 100 bid x 6-8 wks

**Lichen simplex chronica**
- Often seen on the labia
- Pts have had multiple anticandidal treatment
- Stop itch /scratch cycle with potent topical steroids
- Stop the washing/cleaning habits

**Dry skin on feet**
- Keratoderma climacterum-seen in menopause/post-menopause
- Often present with deep fissures
- Urea 40% /topical steroid

**Pruritus and Xerosis**
- Aging skin loses it’s barrier functions and gets drier and itchier
- New onset dryness and itchiness in the elderly - CBC, TSH, LFT’s and renal function
- Lubrication is key
- Decrease water use, NO soap
  - Sedating antihistamines such as benadryl, atarax, doxepin are useful
Treatment

- ACV 800 mg 5 x's/day
- Famvir 500mg tid
- Valacyclovir 1000 tid
- begin within 48 hrs of onset of blister. Any time in immunosuppressed host
- Pain control
  - NSAIDS/Tylenol
  - Neurontin: 100 mg tid
  - Elavil: 25 mg qhs or q 8 hrs
- Prednisone: no role

Herpes Zoster

- Zoster vaccine available –boosts older person’s cell-mediated immunity to VZV
- Study done on 38,000 persons 60 yrs and older (Kimberlin et al NEJM March 2007)
- Incidence of zoster was 51% lower in those that received vaccine vs placebo
- Post-herpetic neuralgia was 67% lower in vaccinated group
- Worked best in 60-69 yr olds

- Can it be used in pts with previous zoster-yes
- How about use in younger age groups? 50 and above now being looked at
- Needs to be give within ½ hour of reconstitution
- $190.00 for injection (ave)

-uptake in most communities is only around 30%
-recommended now before giving patients immunosuppressive drugs like MTX or TNF blockers.
Blistering Diseases

- Most common in the elderly is **BULLOUS PEMPHIGOID**
- Can be localized or widespread blistering
- Biopsy
- Start prednisone 60-80 mg daily and taper over months
- Add steroid sparing drugs like mycophenolate or azathioprine
- Always keep pt on at least low dose prednisone

Too Much Hair

- **Vaniqa**
  - topical cream that breaks the chemical bond of hair
  - apply 2x’s/day forever
  - 30% effective
  - $30/month

Hair Removal

- pigment of hair absorbs the light and gets destroyed
- dark hair responds
- hair is always in different growth phases, so treatment has to be repeated several times to catch the phase(expensive)
- pigment changes of surrounding skin and scarring
- fast and minimal scarring

Hair Loss

- If not scarring and diffuse:
- Check recent surgeries/illness, nutrition, anemia, TSH, estrogen replacement, medication history, VDRL.
- If hirsute with scalp hair loss-DHEAS and free testosterone
- If lactating- check prolactin
If all negative

- Androgenetic Alopecia - Minoxidil 5% bid topically (even in women)
  Can make hair oily - may want to start with minoxidil 2% or use 2% by day and 5% at night
  Minoxidil foam – once at night
  Use for at least 6 months for results and what you see after 1 yr. is the effect you can expect.

What about finasteride (propecia)? – Does not work in women - in men the dose is 1 mg qd.

Stop the Motion

- Botulinum Toxin
  - FDA approved (two types available)
  - paralyzes muscles so that the wrinkles relax
  - excellent for crow’s feet, glabellar wrinkles, and nasolabial fold
  - ptosis and necrosis if not done right
  - lasts for 3 months

- Also being used for hyperhidrosis in palms and axilla
- anal fissures
- migraine headaches
- tics/dysphonia
- muscle spasm in stroke victims

Androgenetic Alopecia

Men

Women
Build up the understructure

- Can you build collagen with creme?
- Retinoids (topical): with daily use over long periods of time, may increase the thickness of collagen
- Retin A- 0.025-0.1 %. Start with crème and move to gel

To Fill and Create Understructure

- Collagen
- Hyaluronic Acid (Restalyne)
- Silicone
- Poly-L-lactic Acid (Sculptra)
- Polymethacralate (Artefill)
- Fat Transfer-pts own material

Points to consider

- Allergy testing
- Pain on injection-some of these have preservatives
- Overcorrection vs undercorrection-pts are happier after they leave office overcorrected with non-permanents

Cautionary points

- Technique important-send to practitioners in the know-nonpermanent fillers are more forgiving; permanent fillers, technique is everything
- Expensive
- May need touch-ups
- Can form granulomas
Ablative Therapy

- Involves wounding the skin with chemicals or light (laser)
- Take into account skin type and amount of damage from sun and aging

What can primary provider do to help?

- If pt has h/o orolabial HSV-prophylaxis with ACV
- If pt has been on accutane-no procedure for at least 6 months after stopping
- If pt has psoriasis-reconsider so as not to have psoriasis spread to face after a procedure
- No bacterial antibiotic prophylaxis is needed
- Sunscreen before and after procedure

Economics

- Most providers using these techniques will use a combination-i.e.-they will fill in some cracks, ablate tumors and stop the motion
- Costly and NOT covered by insurance
- Expectations are often high-many providers who are good will spend time understanding expectations and discuss reality and cost
- Lawsuits are very common
- Addiction to procedures not uncommon

Body Dysmorphic Syndrome

- Patients complain of ugliness/physical flaws
- Thinking about this consumes many hours of their day
- Mirror-looking/ changing clothes/ picking of skin-often associated
- Can be associated with psychosis but does not have to be, drug use not uncommon
- Pts often do their own surgery
• Seek dermatologic and surgical care
• Very dissatisfied with results-onus is on doctor to figure it out
• Recognition by providers is helpful although patients often deny situation
• Conveying to patient that treatment (other than cosmetic) will help with functionality i.e. recognizing that hours of thinking of this gets in the way with other aspects of life-help patients get beyond the pain of their dis-ease

• SSRI’s have been helpful in some studies-usually high dose for at least 12 weeks
• Cognitive behavioral therapy has also been helpful in small studies-time consuming and expensive-pts keep journals of their behavior, substitute pleasurable behaviors, keep track of lapses and what made them lapse