Benign Skin Lesions

Basic Dermatology Curriculum

Updated November 2014
Goals and Objectives

- The purpose of this module is to help the learner recognize and manage some of the most common benign skin lesions.
- By completing this module, the student will be able to:
  - Identify and describe the morphology of common benign skin lesions.
  - Educate patients about these lesions.
  - Discuss management options of these lesions as appropriate.
Case One

- A 42-year-old male presents with a “new mole” on his back, first noticed by his wife 4 months ago.
- The lesion sometimes itches and it bled once after getting caught on his shirt.
- He asks “Doctor, do I have skin cancer?”

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What is the diagnosis?

a) Acquired melanocytic nevus
b) Nodular melanoma
c) Seborrheic keratosis
d) Verruca vulgaris
What is the diagnosis?

a) Acquired melanocytic nevus (Typically soft, round to oval macules or papules. Benign acquired nevi have a uniform color and border.)

b) Nodular melanoma (Usually presents as a changing blue to black, but sometimes pink to red, papule or plaque. May ulcerate or bleed.)

c) Seborrheic keratosis

d) Verruca vulgaris (Common wart. Presents as hyperkeratotic, exophytic, dome-shaped papules or plaques.)
Seborrheic keratosis

- Typically appear as sharply marginated, pigmented lesions
- Can arise on all body surfaces except palms and soles
- Usually papular, but may appear macular
Seborrheic keratoses

- Color is variable (black, tan, flesh colored, pink, and blue)
- Texture can vary from velvety to verrucous (wart-like)…

Velvety, dark brown | Light tan or almost skin colored | Verrucous, tan
Seborrheic keratoses (SKs)

- Often multiple & can be extensive
- SKs usually begin to appear during and after the fourth decade and continue to arise throughout life
- Contrast this with nevi, which typically appear in the first three decades of life
  - A new nevus at age 50 should raise suspicion of melanoma...
How can I tell if a lesion is a seborrheic keratosis?

- SKs are superficial epidermal growths. They have a stuck-on quality, like a piece of wax pressed onto the skin.
How can I tell if a lesion is a seborrheic keratosis?

- If you are in doubt of the diagnosis, try gently picking or scratching the lesion. It may crumble, flake, or lift off, revealing that superficial waxy character.
How can I tell if a lesion is a seborrheic keratosis?

- Use dermoscopy to look for keratin pseudocysts
- These are small white spots commonly found in seborrheic keratoses
How can I tell if a lesion is a seborrheic keratosis?

- Evaluate the lesion in the context of the patient’s other growths – Does the lesion look like its neighbors?
- Always pay attention to “the ugly duckling” – the lesion that appears different from the rest
- When in doubt, biopsy or refer
Treatment of seborrheic keratoses

- Though harmless, SKs can occasionally become irritated or can be cosmetically bothersome.
- When necessary, SKs may be treated with curettage, cryotherapy, electrodessication, or shave removal.
- If picked off or curetted, SKs will leave a pink moist base with minimal bleeding.

This SK has been partially picked off.
“Doctor, can you remove my freckles?”

- Are these freckles?
  - No, they are considered a variant of SKs

- Dermatosis papulosa nigra
  - Multiple, small, hyperpigmented, sessile to filiform, smooth-surfaced papules
  - Arise in darker skin types, usually on the cheeks and temples
Dermatosis papulosa nigra

- Harmless, but may be a cosmetic issue for some
- Would you treat these lesions with liquid nitrogen?
Dermatosis papulosa nigra

- **No. Why not use liquid nitrogen?**
  - Freezing could cause pigmentation changes (usually lighter but sometimes darker)
    - Melanocytes are very sensitive to cold

- **Which “treatment” might you choose?**
  - Very light electrodessication is often safest (use of electric current to cause superficial destruction)
Dyspigmentation after cryotherapy

- This patient had SKs treated with cryotherapy and now has permanent dyspigmentation.
- Even with electrodessication, a test spot is in order to determine how the patient is likely to react.
Another variant of SKs...

- **Stucco keratoses** – small white-gray SKs on dorsal feet / ankles of older fair-skinned individuals
- Again, harmless, but if desired, may treat with cryotherapy, curettage, or electrodessication
- May try OTC ammonium lactate lotion/cream
Case Two

“Doctor, these ‘moles’ keep getting caught on my necklaces. Can you remove them?”
Skin tags (acrochordons)

- **Acrochordons** are skin-colored to brown, often pedunculated, fleshy papules.
- They arise on the eyelids, neck, axillae, and groin.
- Usually asymptomatic, but can become painful secondary to irritation or infarction.
“Doctor, why do I get these skin tags?”

- Genetics, obesity, friction may all play a role
- Skin tags are also more common in pregnancy
- Like *acanthosis nigricans*, skin tags can be a marker for insulin resistance
Skin tag removal is elective

Methods for elective removal include:
- Snipping (use pressure or aluminum chloride for any bleeding)
- Liquid nitrogen (for lighter skin types)
- Electrodessication

Occasionally skin tags will outgrow their blood supply or become twisted such that their blood supply is cut off and they undergo necrosis, subsequently falling off on their own.

If asymptomatic, inform patient elective removal is an out-of-pocket expense.
Case Three

- A 45-year-old male presents with a “red mole” which appeared 6 months ago and has increased in size.
- It is not tender and has not bled.
What is the diagnosis?

a) Basal cell carcinoma
b) Cherry angioma
c) Congenital nevus
d) Petechiae
e) Seborrheic keratosis
What is the diagnosis?

a) Basal cell carcinoma (Nodular BCC, the most common subtype, presents as a pearly papule or nodule with a smooth surface and often with telangiectasia)

b) Cherry angioma (Round to oval, bright red, dome-shaped papules ranging in size from barely visible to several mm in diameter)

c) Congenital nevus (Congenital nevi are present at birth)

d) Petechiae (Small, < 3mm, round hemorrhagic macules)

e) Seborrheic keratosis (Typically appear as tan to brown, waxy, suck-on appearing papules)
Cherry angiomas

- **Cherry angioma**
- Common acquired vascular proliferation
- Usually develop in 4th decade and increase in number over time
- Highest concentration on the trunk
Traumatized cherry angioma

- Occasionally cherry angiomas may bleed or thrombose, thereby mimicking melanoma
- “When in doubt, biopsy or refer it out”
A 24-year-old female reports developing a new growth on her leg 6 months ago.

- She sometimes nicks it when shaving.
- It’s gotten darker around the edges over the past few months.
- On palpation, you notice that it feels firm, like scar tissue.
What is the diagnosis?

a) Acquired melanocytic nevus
b) Basal cell carcinoma
c) Dermatofibroma
d) Nodular melanoma
e) Seborrheic keratosis
What is the diagnosis?

a) Acquired melanocytic nevus (Typically soft, round to oval macules or papules. Benign acquired nevi have a uniform color and border.)

b) Basal cell carcinoma (Nodular BCC, the most common subtype, presents as a pearly papule or nodule with a smooth surface and often with telangiectasia)

a) Dermatofibroma

b) Nodular melanoma (Usually presents as a changing blue to black, but sometimes pink to red, papule or plaque. May ulcerate or bleed.)

a) Seborrheic keratosis (Typically appear as tan to brown, waxy, “stuck-on” appearing papules)
What do you do next?

a) Biopsy immediately
b) Reassure the patient that it is benign
c) Reassure the patient that it will go away
d) Refer to dermatology
What do you do next?

a) Biopsy immediately

b) Reassure the patient that it is benign
   • If the lesion changes, return to clinic for evaluation

c) Reassure the patient that it will go away

d) Refer to dermatology
Dermatofibroma

- **Dermatofibroma**
- Benign tumor of the skin
- Often on the extremities
- Firm, hyperpigmented dome-shaped papules
  - May be tan to pink in patients with lightly pigmented skin
- Peripheral rim of darkening pigment is common
Dermatofibroma

- May be elevated or slightly depressed. Lesion is adherent to the epidermis and there may be a dell-like depression over the nodule.
- If you pinch on either side of a dermatofibroma, it tends to dimple due to that scar-like tethering of the dermis - “the dimple sign”
Dermatofibroma

- Can be multiple
- Possibly due to minor unrecognized skin insults
- Usually asymptomatic and do not require treatment
Case Five

A 65-year-old woman complains of “brown spots” on her face and dorsal hands which she feels makes her “look old”
What is the diagnosis?

a) Actinic keratoses
b) Seborrheic keratoses
c) Sign of cirrhosis
d) Solar lentigines
What is the diagnosis?

a) Actinic keratoses (Minimally elevated to thicker, rough, scaly papules with an underlying red base)

b) Seborrheic keratoses (Typically appear as tan to brown, waxy, “stuck-on” appearing papules)

c) Sign of cirrhosis (Associated skin findings include jaundice, spider angiomas, palmar erythema, and nail changes)

d) Solar lentigines
What will you tell the patient?

- The solar **lentigo**, AKA “sun spot”, “age spot”, or “liver spot” is due to sun damage, but is not cancerous or precancerous.

- No treatment is required, however...
  - Extensive solar lentigines reflect history of UV exposure, and therefore can identify patients at risk for skin cancer.
Solar lentigines

- Although no treatment is required, there are a variety of cosmetic treatments available (bleaching creams, liquid nitrogen, chemical peels, lasers…)
- The first step is always sun protection
Case Six

A 57-year-old female presents with numerous, asymptomatic bumps on her face, slowly arising over the past five years.
Skin exam

How would you describe these lesions?

a) Erythematous eczematous plaques
b) Erythematous edematous plaques
c) Pigmented waxy papules
d) Yellowish-flesh colored smooth papules
Skin exam

Answer: d

How would you describe these lesions?

- a) Erythematous eczematous plaques
- b) Erythematous edematous plaques
- c) Pigmented waxy papules
- d) Yellowish-flesh colored smooth papules
What do you tell the patient?

You observe numerous skin-colored or yellowish, umbilicated (i.e. have a central dell) papules on forehead and central face.

What do you tell the patient?

a) Expect more of these in the coming years
b) Shave biopsy is necessary to rule out early skin cancers (basal cell carcinoma)
c) Use a face wash for oily skin to reduce the appearance of these
What do you tell the patient?

a) Expect more of these in the coming years
b) Shave biopsy is necessary to rule out early skin cancers
c) Use a face wash for oily skin to reduce the appearance of these
Sebaceous hyperplasia

- **Sebaceous hyperplasia**
- Sebaceous gland (i.e. oil gland) enlargement
  - Hence the yellow color
  - Umbilication due to gland growth around a central hair follicle
- Removal is not medically required and is cosmetic
How can you tell the difference between sebaceous hyperplasia and basal cell carcinoma?

- **Sebaceous hyperplasia**
  - Yellow color, umbilication, and multiple similar papules
  - Seldom bleed or form crust

- **Basal cell carcinoma**
  - Pearly, waxy appearance, often with telangiectasia
  - Fragile, will bleed or scab easily with minimal trauma

- Biopsy or referral may be necessary
- Training in dermoscopy helps distinguish
Case Seven

A healthy 24-year-old African American male presents with an itchy, firm growth on the earlobe, which arose (gradually increasing in size) over several months after an ear piercing.
What is the diagnosis?

a) Epidermal inclusion cyst
b) Infection from ear piercing
c) Keloid scar
d) Lipoma
What is the diagnosis?

a) Epidermal inclusion cyst (Would expect compressible cystic mass with clinically visible punctum)

b) Infection from ear piercing (Would expect acute, painful and fluctuant nodule)

c) Keloid scar

d) Lipoma (Would expect a soft or rubbery, mobile, subcutaneous nodule with normal overlying epidermis)
Keloids

- **Keloid**: result of abnormal wound healing leading to overgrowth of scar tissue beyond the original scar site
- More common on upper trunk and earlobes
- Genetic influence (most common in African-Americans) plus with some form of skin injury
Keloids

- Color can vary from pink–purple (early lesions) to skin-colored to hypo- or hyperpigmented
- Can be itchy or tender
- Do not regress spontaneously
- Can be cosmetically disfiguring
Treatment of keloids

- Keloids are difficult to treat surgically, with a high recurrence rate
- No single, reliably efficacious therapy available
- Non-essential cosmetic surgery should be avoided in patients predisposed to developing keloids
- Intraleisonal corticosteroid injection has been the mainstay of treatment for keloids
  - Most commonly used is triamcinolone acetonide in concentrations of 10–40 mg/mL at 4- to 6-week intervals
Case Eight

A 35-year-old male presents with a 1.5 cm nodule on the upper back and the chief concern, “Doc, my wife keeps trying to pop this ‘sebaceous cyst’, but it just refills with nasty-smelling white material.”
Epidermal inclusion cyst (EIC)

- **EIC**: Mobile dermal nodule, often with an overlying punctum
- Most common cutaneous cysts
- Although sometimes referred to as “sebaceous cysts”, EIC’s actually arise from hair follicles, not oil glands
- Cyst contains degenerating keratinocytes – rancid smell if opened.
- EICs become severely inflamed if contents enter dermis – often mistaken for infection.
Treatment of EIC

Which of the following would you tell the patient?

a) Definitive treatment is complete surgical excision
b) Keep “popping it” whenever possible to keep it small
c) Use warm compresses until the cyst ruptures and clears
Treatment of EIC

Answer: a

Which of the following would you tell the patient?

a) **Definitive treatment is complete surgical excision**

b) Keep “popping it” whenever possible to keep it small

c) Use warm compresses until the cyst ruptures and clears
Epidermal inclusion cyst

- Benign - If treatment is desired, surgical excision is curative
- Cysts may recur. Removal of entire cyst wall and contents improves chances of clearance.
- When traumatized, EICs may rupture in the skin, creating an acute inflammatory response
Inflamed EIC

- Unlike a bacterial abscess, ruptured EICs tend to be sterile and do not require oral antibiotics.
- Presence of a preceding EIC differentiates from bacterial abscess.
- Treatment may require incision and drainage. Intraliesional triamcinolone injections may treat the inflammation.
- Inflamed EICs should not be excised due to higher risk of infection, wound dehiscence and cyst recurrence.
Case Nine

A 30-year-old male presents to your clinic and asks, “Doctor, this white bump on my cheek came up a few months ago and won’t go away. What is it?”
Diagnosis

- **Milia**: tiny epidermoid cysts
  - 1-2 mm white to yellow subepidermal papules
  - They are fixed and persistent
- Occur in individuals of all ages
  - Children and adults commonly develop milia, especially on the cheeks, eyelids, forehead, and genitalia
  - 40-50% of infants will have milia, which usually resolve during the 1st four weeks of life
- Can be considered primary, appearing spontaneously, or secondary, resulting from trauma, a skin disease, or medication
Milia treatment

What will you tell the patient?

a) It can be easily extracted without scarring
b) Just wait for it to go away on its own; we see this in newborns all the time
c) Pop it like a zit
d) The only treatment is surgical and the scar would be worse than the milia
Milia treatment

What will you tell the patient?

a) It can be easily extracted without scarring

b) Just wait for it to go away on its own; we see this in newborns all the time (Milia in newborns tend to resolve within weeks. Milia in adults tend to persist)

c) Pop it like a zit (Not effective in treating milia)

d) The only treatment is surgical and the scar would be worse than the milia (Not true. Milia are easily extracted without causing a scar)
Elective removal for cosmesis

Nick the surface with an 11 blade or an 18 gauge needle, then gently express the entire cyst, lining and contents. Dress with a dab of petrolatum.
“This lump has been slowly enlarging for years. It doesn’t bother me, but my wife wants it checked out.”

You palpate a mobile, soft, subcutaneous nodule, lacking any overlying skin change.

On exam, he has a few other similar soft to rubbery mobile subcutaneous nodules on his arms and legs.
What do you tell the patient?

a) Treatment is surgical and considered elective
b) We need to excise quickly before this grows any bigger
c) We need to excise quickly to rule out metastatic cancer
d) You are likely to get many more of these in coming years
What do you tell the patient?

Answer: a

a) Treatment is surgical and considered elective

b) We need to excise quickly before this grows any bigger

c) We need to excise quickly to rule out metastatic cancer

d) You are likely to get many more of these in coming years
Lipoma

- **Lipomas**: Texture is your clue. Lipomas feel like what they are, collections of fat under the skin.
- Growth usually stabilizes at a few cm diameter.
- Often solitary, frequently on the trunk and proximal extremities.
- When familial (autosomal dominant), lipomas tend to be multiple and begin in early adulthood.
- Occasionally lipomas can be tender.
Take home points: mix and match self quiz

- Waxy, pigmented, stuck-on
- Superficial bright red vascular papule
- Firm papule on the leg with rim of pigmentation
- Definitive treatment for epidermal inclusion cysts
- Elective removal of benign lesions in darker skin types (DPN, skin tags, etc.)
- Dermatofibroma
- Seborrheic keratoses
- Excision (NOT aspiration or squeezing / “popping”)
- Cherry angioma
- Electrodessication or snip (NOT liquid nitrogen)
Take home points: mix and match self quiz

- Waxy, pigmented, stuck-on
- Superficial bright red vascular papule
- Firm papule on the leg with rim of pigmentation
- Definitive treatment for epidermal inclusion cysts
- Elective removal of benign lesions in darker skin types (DPN, skin tags, etc.)

- Dermatofibroma
- Seborrheic keratoses
- Excision (NOT aspiration or squeezing / “popping”)
- Cherry angioma
- Electrodessication or snip (NOT liquid nitrogen)
On your next clinical rotation, see if you can identify the following common benign skin lesions on your patients:
Acknowledgements

- This module was developed by the American Academy of Dermatology Medical Student Core Curriculum Workgroup from 2008-2012.
- Primary author: Rebecca B. Luria, MD, FAAD.
- Peer reviewers: Susan K. Ailor, MD, FAAD; Jennifer Swearingen, MD, Timothy G. Berger, MD, FAAD; Mark Eliason, MD, FAAD; Leonard J. Swinyer MD, FAAD.
- Revisions: Rebecca B. Luria, MD, FAAD; Sarah D. Cipriano, MD, MPH, Last revised February 2014.
Suggested Readings/References


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To take the quiz, click on the following link:

https://www.aad.org/quiz/benign-skin-lesions-learners