To shave or not to shave

Dermatology Biopsy Techniques

Brandon Litzner, MD

Dermatology/Dermatopathology

Heartland Dermatology

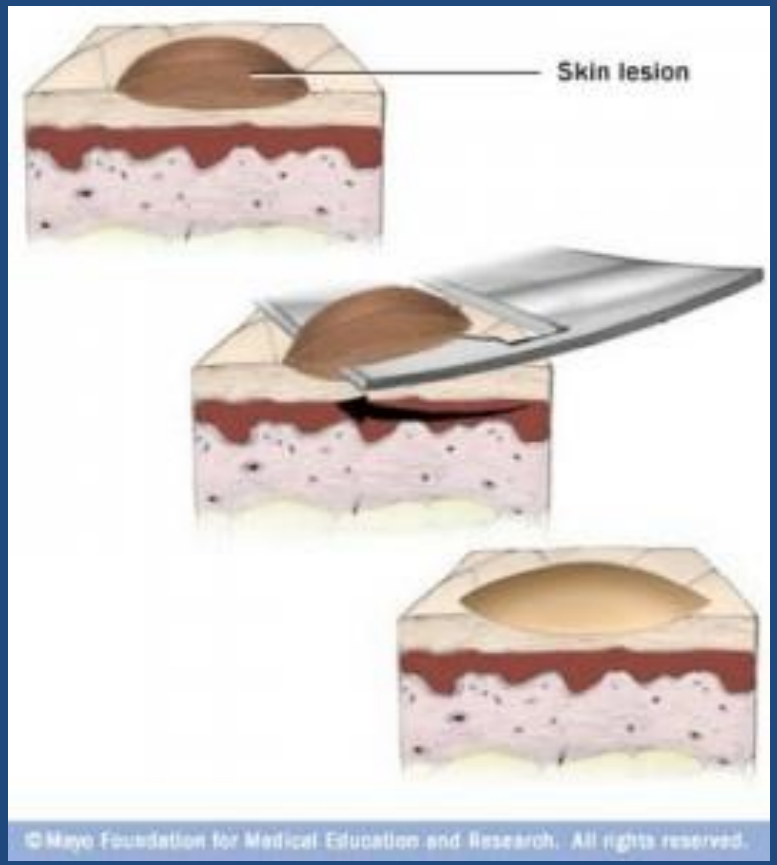
HEARTLAND DERMATOLOGY and SKIN CANCER CENTER, PA

Types of Biopsy

- Shave biopsy
- Punch biopsy
- Excisional biopsy
- Incisional biopsy

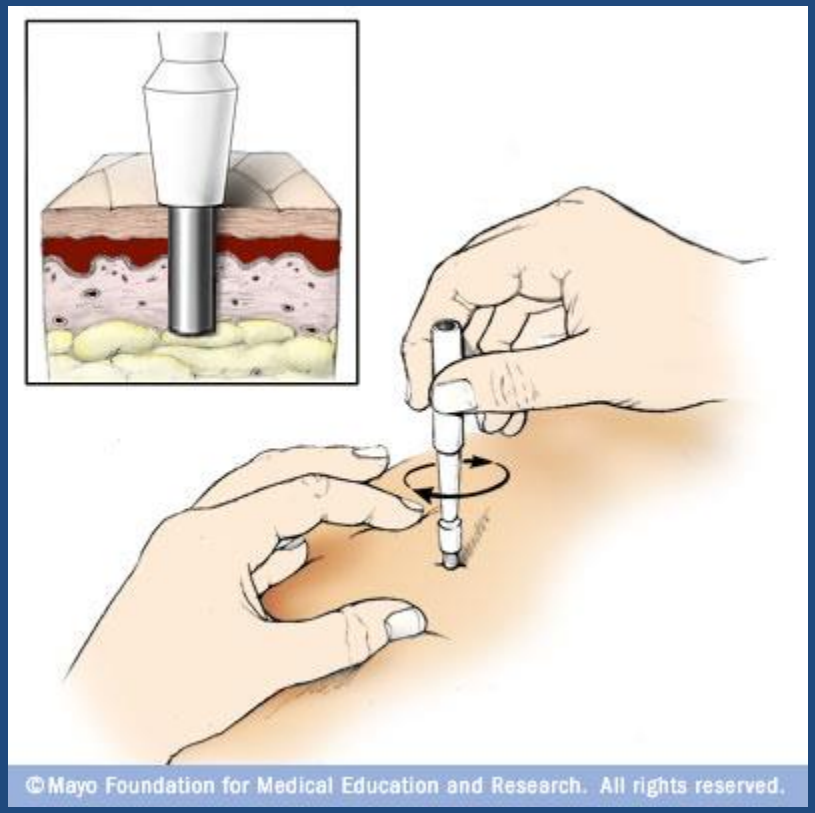
Shave biopsy

- Advantages
  - Quick
  - No sutures (no pt f/u, cheaper)
  - Minimal scarring
- Disadvantages
  - Typically only the epidermis and papillary dermis are visible for evaluation



Punch biopsy

- Advantages
  - Epidermis, dermis and subcutaneous tissue available for evaluation
- Disadvantages
  - Typically requires sutures (pt f/u visit, increased cost)
  - Slightly higher risk of complication



Biopsy Misadventures

Elgart, Milikowski, Civantos, and Goldberg have no conflicts of interest to declare.

Correspondence to: James M. Grichnik, MD, PhD, Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, 1501 NW 10th Ave, Room 912, BRB, Miami, FL 33136

E-mail: grichnik@med.miami.edu

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Potential exsanguination from a punch biopsy

To the Editor: The importance of patient safety for dermatologists was previously outlined in this journal.[1] Potentially lethal mishaps in the dermatologist's office are exceedingly rare but should be disclosed and publicized to promote safety.

A 66-year-old man presented for possible nephrogenic systemic fibrosis. His past medical history included diabetes mellitus, stage IV chronic kidney disease, and surgery for chronic ulcers on his right leg. Five months earlier, he underwent magnetic resonance angiography. He now complained of pruritus involving his forearms and trunk. Xerosis with mild lichenification was observed on his arms and trunk along with a sclerotic, hyperpigmented plaque on his right distal lateral thigh. A 5-mm punch biopsy was attempted at the right lateral thigh, but

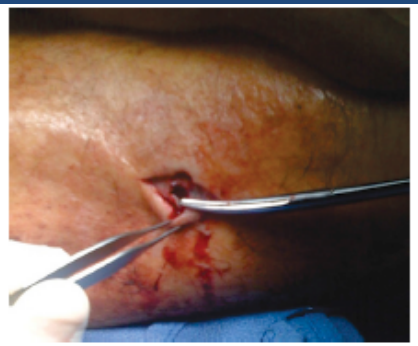


Fig 1. Accidental arteriotomy of bypass graft from punch biopsy of overlying skin. Intraoperative image of our patient's punch biopsy reveals an arteriotomy of a noncompressible polytetrafluoroethylene graft.

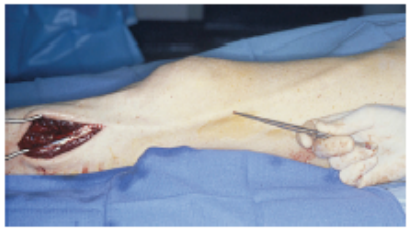


Fig 2. Example of tunneled bypass graft in lower extremity. A different patient's prosthetic arterial graft, which is tunneled subcutaneously and laterally around the left knee.

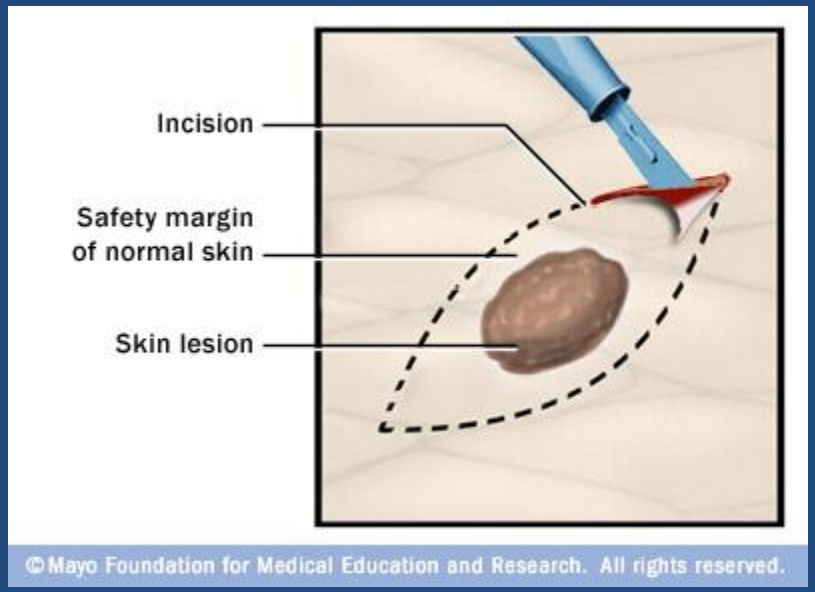
anterior tibial artery polytetrafluoroethylene (Teflon) bypass graft in the operating room (Fig 1).

We present this case to alert dermatologists to the danger of performing a punch biopsy on a patient with a bypass graft. A detailed history of bypass grafting is essential if a punch biopsy is needed on the leg. Physical examination may identify signs of previous surgeries (ie, medial versus lateral scars on the lower extremities).

In arterial bypass procedures, many potential variations exist, including the route in which grafts are tunneled and the material used.[2] Infrainguinal vessels are generally exposed through a medial approach, except for the anterior tibial and peroneal

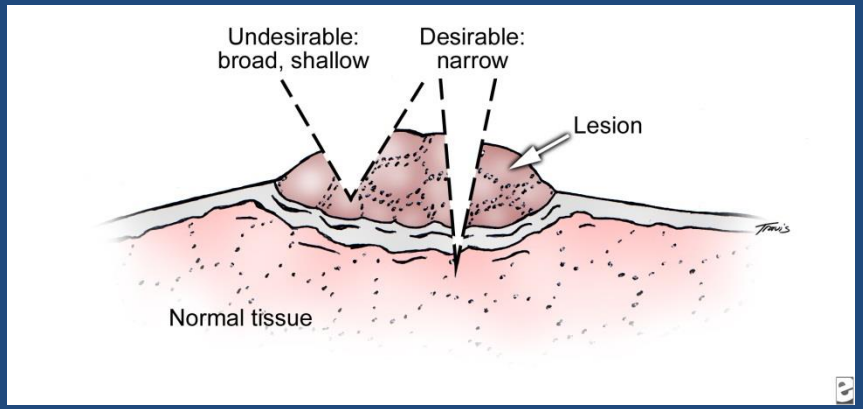
Excisional biopsy

- Technique
  - Margin: 2mm
  - Depth: fat
- Advantages
  - Epidermis, dermis and subcutaneous tissue available for evaluation
  - Complete removal of lesion if benign
- Disadvantages
  - Requires sutures (pt f/u visit, increased cost)
  - More time intensive
  - Higher risk of complication (bleeding, infection)
  - Scarring



Incisional biopsy

- Advantages
  - Full depth available for evaluation
- Disadvantages
  - Partial sampling may lead to misdiagnosis or less definitive biopsy diagnosis
  - Time intensive
  - Sutures required (pt f/u, cost)
  - Higher rate of complication



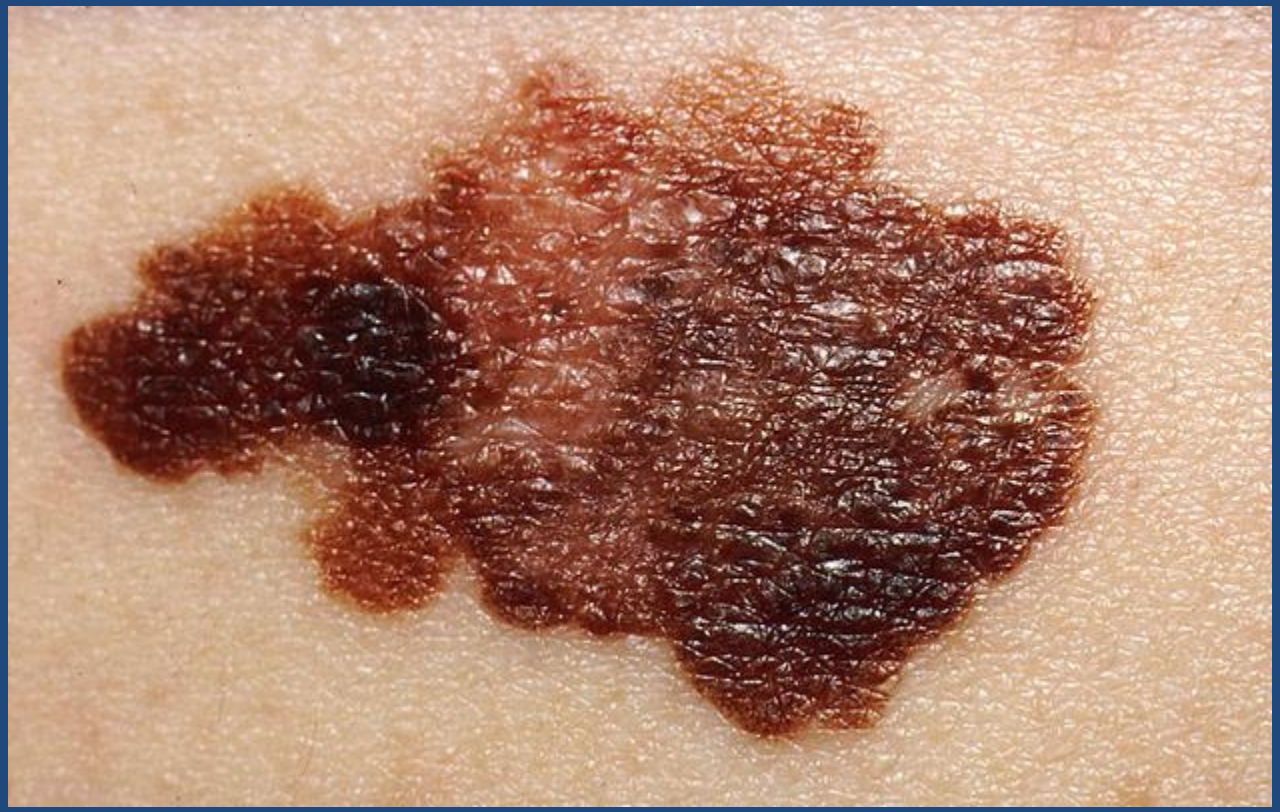
General Biopsy Rules

- Punch
  - Inflammatory skin conditions
- Shave
  - Neoplastic skin conditions

General Biopsy Rules

- Excisional biopsy
  - Probable benign process where complete removal is desired or decreased chance of recurrence is desired
    - Probable epidermoid cyst or probable larger dermatofibroma
    - Small to medium-sized congenital nevi
  - High clinical probability of melanoma
- Incisional biopsy
  - Complete removal is impractical or impossible
    - Giant congenital nevus with proliferative nodule
    - Ulceration
      - Incisional biopsy extending from normal skin towards the center of the ulcer is desirable

What about pigmented lesions?



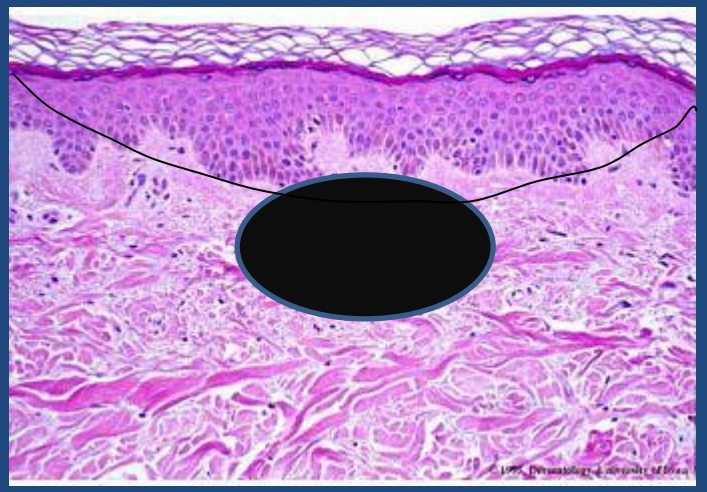
What factors should be considered?

1. Accurate diagnosis (melanoma or not)
   - Overall symmetry and circumscription are two of the most important histopathologic factors in differentiating melanoma from benign pigmented lesions (such as lentiginous/dysplastic nevi)
   - Assessment of symmetry and circumscription requires removal of the entire breadth of the lesion
2. Breslow depth
   - Assessment requires removal of the entire depth of the lesion

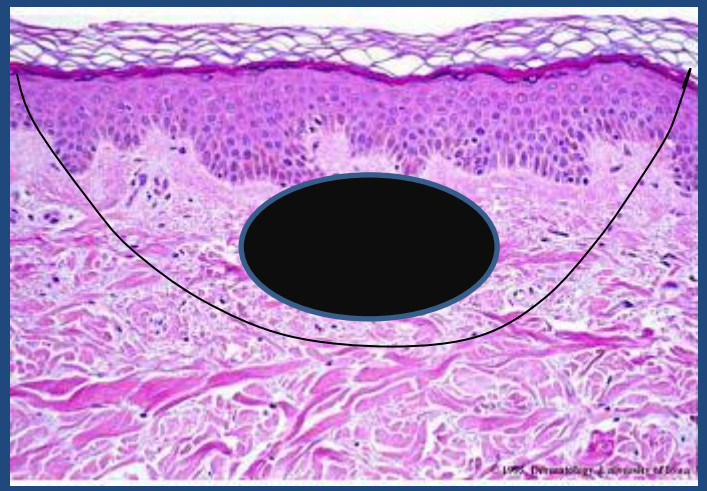
Biopsy options for pigmented lesions

- Excisional biopsy
- Saucerization biopsy- the choice of most dermatologists (myself included)
- Punch biopsy

Shave biopsy



Saucerization biopsy



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ORIGINAL ARTICLE

Journal of Drugs in Dermatology

A Retrospective Comparison Between Preoperative and Postoperative Breslow Depth in Primary Cutaneous Melanoma: How Preoperative Shave Biopsies Affect Surgical Management

Michael Saco MD[a,b] and Jack Thigpen MD FACS[b]

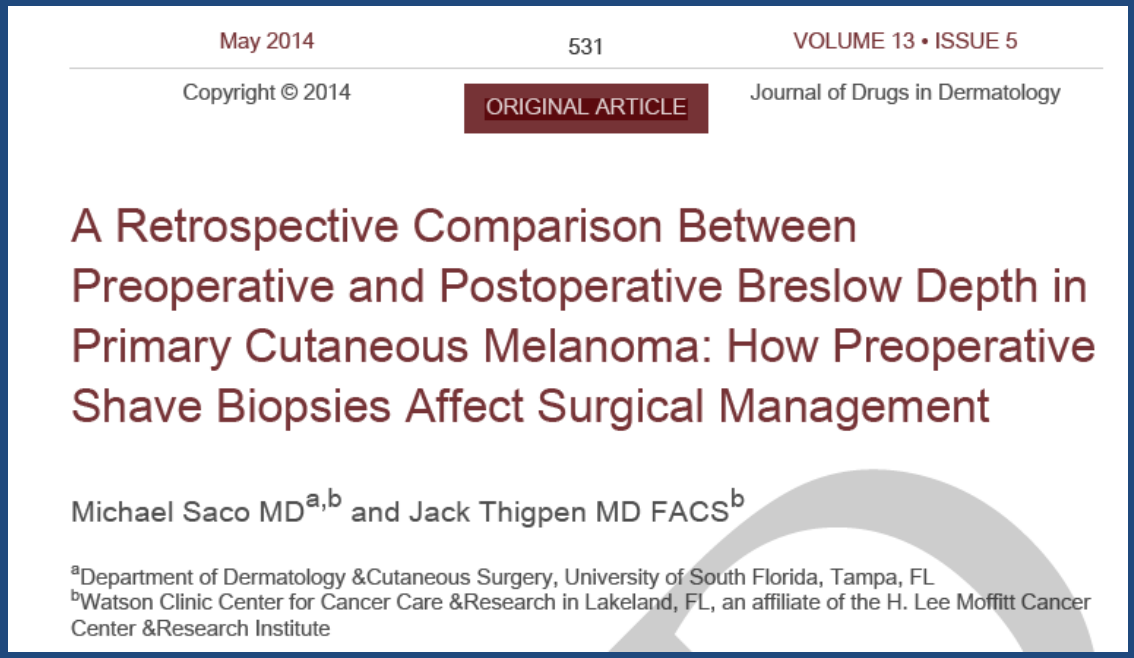
[a]Department of Dermatology &Cutaneous Surgery, University of South Florida, Tampa, FL
[b]Watson Clinic Center for Cancer Care &Research in Lakeland, FL, an affiliate of the H. Lee Moffitt Cancer Center &Research Institute

TABLE 1.

Recommended Surgical Margins for Primary Cutaneous Melanoma Excision[a]

T-Stage of Primary Tumor	Breslow Depth, mm	Recommended Surgical Margins for Excision, cm
Tis	In situ	0.5[ab]
T1	≤ 1	1
T2	1.01-2.0	1-2
T3	2.01-4.0	2
T4	> 4	2

[a]Margins > 0.5 cm may be needed in cases of lentigo maligna
[b]The American Academy of Dermatology recommends surgical margins of 0.5-1.0 cm for melanoma in situ based on consensus opinion.[4]



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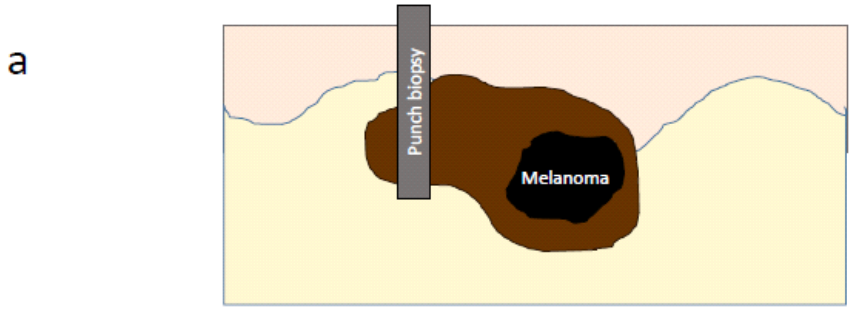
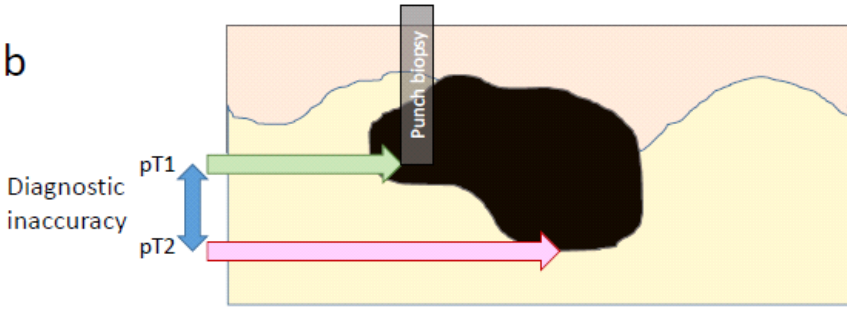
- 242 cases with saucerization biopsy and subsequent excision specimen
- Transection occurred in 13.7% of cases
- Tumor upstaging only occurred 1.3% of cases
- Only 0.9% of cases required wider surgical margins (these were actually due to sampling error and not due to transection)
- Breslow depth was accurately determined in 96.5% of cases

Biopsy Misadventure





Pigmented lesion biopsy take home points

- Acceptable
  - Excisional biopsy (2mm margin, depth to fat)
  - Saucerization biopsy with attempt to get full depth of lesion (at least 0.75 mm of dermis)
  - Punch biopsy (depth to fat) with complete removal of the lesion
- Not acceptable
  - Punch biopsy with only partial removal (ie 6mm lesion removed with 4mm punch
  - Incisional biopsy

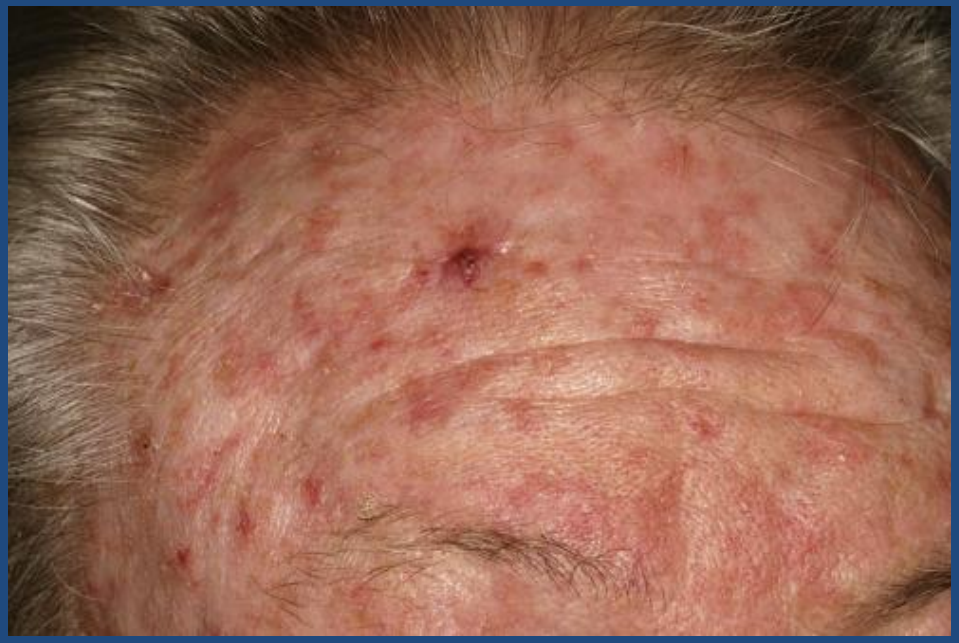

KEEP
CALM
AND
SEE NEXT
PATIENT

But wait….The Requisition form


Help Me
Help You

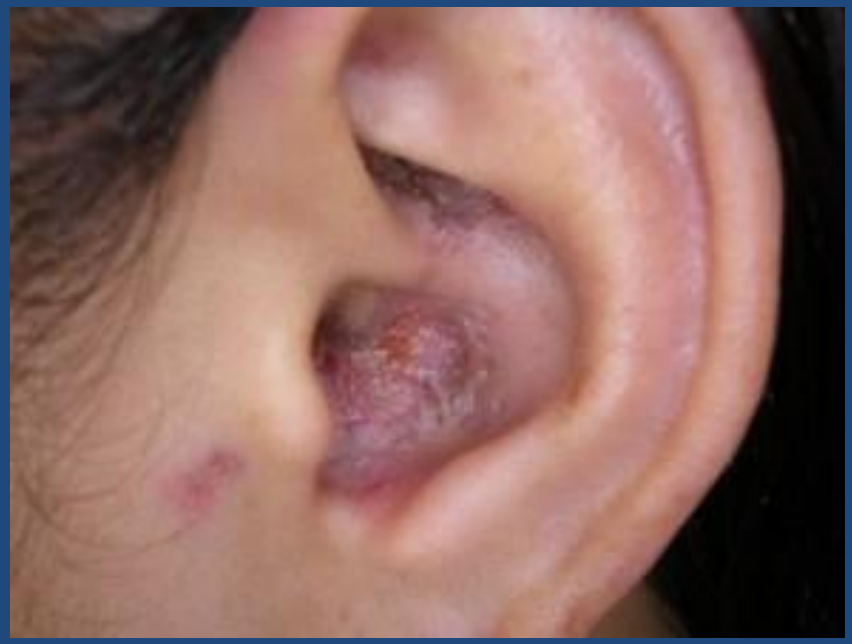
Requisition form components

- Anatomic Site
  - Be Specific
- Clinical Information
  - Neoplasms
    - Give a differential or describe the lesion
  - Inflammatory processes
    - Give a differential or describe the eruption
    - The less you know the more you should say.
    - History won't bias me it will help me to give you a better diagnosis
    - Really in trouble….
      - A picture is worth a 1000 words



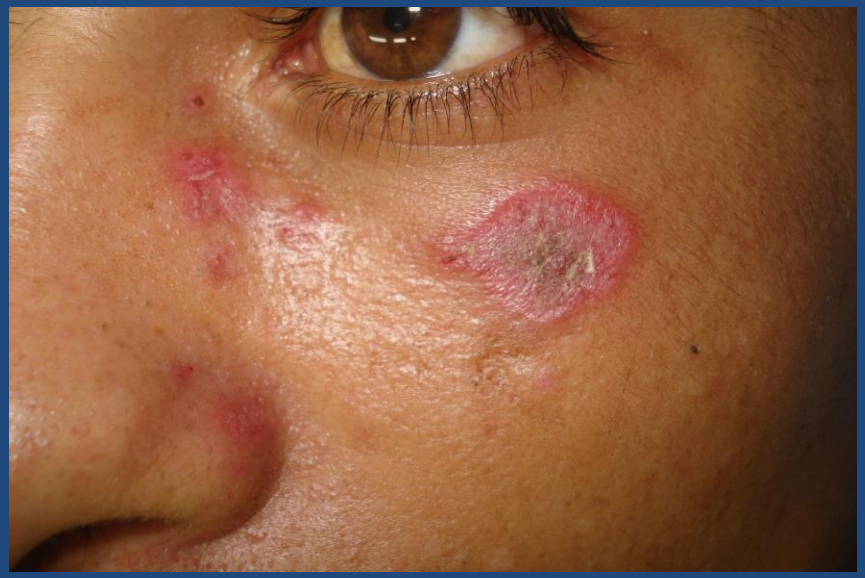
Biopsy misadventure

- Differential diagnosis?
  - BCC
  - SCC
  - AK
  - Anything else????
- Type of biopsy?
  - Curette was selected
- Original Biopsy read as SCC
- Mohs surgery
- Clinical recurrence within 2 months following surgery
- Repeat biopsy without malignancy



Biopsy misadventure

- Biopsy #2
- Pathology Requisition
  - r/o SCC
- Biopsy reveals lichenoid inflammatory infiltrate without malignancy, deeper dermis not present for evaluation
- Clinician call
- Repeat punch biopsy of ear yields correct diagnosis which is…..
  - Discoid Lupus




KEEP
CALM
AND
SEE NEXT
PATIENT

But wait…I want to get paid


SHOW ME
THE MONEY

New Skin Biopsy Codes (as of Jan 2019)

CPT Code	Code Descriptor	CPT Addon Code	Code Descriptor	Code Status
~~**11100**~~	Biopsy of skin, subcutaneous tissue and/or mucous membrane (including simple closure), unless otherwise listed; single lesion	~~11101~~	each separate/additional lesion (List separately in addition to code for primary procedure)	*Deleted as of 12/31/18*
•**11102**	Tangential biopsy of skin, (eg, shave, scoop, saucerize, curette), single lesion	+•11103	each separate/additional lesion (List separately in addition to code for primary procedure)	***Effective as of 01/01/19***
•**11104**	Punch biopsy of skin, (including simple closure when performed), single lesion	+•11105	each separate/additional lesion (List separately in addition to code for primary procedure)	***Effective as of 01/01/19***
•**11106**	Incisional biopsy of skin (eg, wedge), (including simple closure when performed), single lesion	+•11107	each separate/additional lesion (List separately in addition to code for primary procedure)	***Effective as of 01/01/19***

AAD Coding Consult, Fall 2018

Multiple Biopsy Guidelines

2 Tangential Biopsies	3 Punch Biopsies	2 Incisional Biopsies	1 Punch Biopsy, 2 Tangential Biopsies
11102	11104	11106	11104
+11103	+11105	+11107	+11103

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Bonus Coding Questions

- What code series should be used if your intent is to remove the lesion and you utilize a shave technique?
  - Shave removal codes (11300-11313)
- What code series should be used if your intent is to remove the lesion and you utilize a punch biopsy extending into subcutaneous tissue?
  - Skin excision codes (11400-11646)
- What modifier should be added to the E&M code if performed concurrently with an office visit?
  - 25 modifier

Questions???