

Lesion Biopsy Techniques

Cut, Punch and Shave Away

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November 2001

Objectives

As a result of attending this session, the participant will be able to:

1. Demonstrate the correct technique for a punch biopsy.
2. Demonstrate the correct technique for a shave biopsy.
3. Demonstrate the correct technique for an excisional biopsy.

Class Notes

Prerequisites for this class are knowledge of basic wound closure technique and proficiency in infiltration of local anesthetics.

A companion handout entitled “*Wound Management Core Information: Suturing and Biopsies*” will be found in the conference handouts.

Essential History

- ☐ Date of procedure.
- ☐ Biopsy site.
- ☐ Lesion description including characteristics and size.
- ☐ Differential diagnosis.

Basic Biopsy Principles

- ☐ At the right time.
- ☐ From the right area.
- ☐ In the right way.
- ☐ With the right pathologist.

Inflammatory dermatitis: do a full thickness biopsy, either punch or incisional, going down to the subcutaneous fat. Don't use a shave biopsy.

Pigmented lesion: if suspicious remove fully and include adjacent normal skin.

Squamous and basal cell carcinomas: epidermal lesions, remove completely. Do an excisional biopsy or shave biopsy with curettage.

Sebaceous cyst: There are a variety of approaches that can be used. For a small cyst you can use a curved incision following the base. To reduce the size of the scar a larger cyst can be approached using a 3-4 mm punch biopsy. Express contents. Remove lining. Use a vertical mattress suture for closure. These lesions may recur.

Skin tags: remove by cutting at the base. They can also be treated with cryotherapy and frozen.

Basic Steps

- ☐ Informed consent
- ☐ Anesthetize then prep area
- ☐ Remove lesion
- ☐ Control bleeding
- ☐ Undermine if needed
- ☐ Close wound

Punch Biopsy

Used for inflammatory lesions, small pigmented lesions, and sebaceous cysts. Best to completely remove lesion. Scarring will occur. If 4 mm or greater in size then close using a vertical mattress suture. To do stretch the skin perpendicular to skin tension lines. Twist the punch while pushing it in. Push the punch into the hub, keeping in mind the anatomy of the area being biopsied. Pull punch straight out. Gently grasp the tissue with forceps being careful not to crush it. Snip the specimen free at the base. Then close with a vertical mattress suture, a simple interrupted suture, a Steri-strip, or leave open if less than 4 mm in size.

Shave Biopsy

A circular depressed scar will occur with a shave biopsy. No closure is required. Used for pedunculated or elevated lesions, actinic keratosis, and dermatofibromas not suspected of being melanomas or inflammatory reactions.

Excisional & Incisional Biopsies

Used for pigmented lesions larger than 6 mm. Require suture or staple closure. Elliptical incision 3:1 ratio of length to width. Use a #15 scalpel blade and hold perpendicular to the skin. For an incisional biopsy make the elliptical incision into the lesion including the most abnormal area.

Specimen Handling

- ☐ Label the container and pathology request with the patient's name.
- ☐ Handle all tissue gently.
- ☐ Use one container per biopsy site.
- ☐ If indicated tag the biopsy specimen with a suture to orient the lesion. Record the tag position on the pathology request.

Additional Information

Please ask any questions you may have during the session. If unable to attend the session or if questions come up later you can contact the speaker at his office, which is listed below. You can also talk with him through out the conference.

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Self-Assessment Questions

As a result of attending this session, are you able to:

1. Demonstrate the correct technique for a punch biopsy?
2. Demonstrate the correct technique for a shave biopsy?
3. Demonstrate the correct technique for an excisional biopsy?