PROCEDURES:
SKIN TAG (ACROCHORDON) REMOVAL

Background

1. Specific cause of skin tags unidentified; multiple studies have shown increased incidence in patients with insulin resistance and obesity.
2. Occur in areas with the most friction, i.e. intertriginous areas; especially predominant in axilla and on neck.
3. Lesions are benign and have no malignant potential
4. Due to unspecific etiology of skin tags, no specific prevention strategies identified

Differential

1. Neurofibroma
2. Intradermal melanocytic nevi
3. Seborrheic keratosis

Indications for Removal

1. Symptomatic
   - Only true indication for removal in **adults** is symptomatic lesion, which is common from everyday irritation. Failure to document this (symptomatic) could result in non-payment from insurance.
2. Diagnostic, if unsure. Diagnosis usually clear; lesion not sent to pathology; some cases may not be clear cut.
   - Rare cases of squamous and basal cell carcinomas reportedly seen in an acrochordon, but pathologic diagnosis is not commonly practiced. Recent study showed only 5 specimens of 1335 submitted with clinical diagnosis of acrochordon were malignant (0.375%).
3. Childhood Acrochordons
   - Should always be removed and sent to pathology; may be early evidence of nevoid basal cell carcinoma syndrome
4. Cosmetic
   - Not true indication, but patient can pay out of pocket for removal.

Contraindications

1. Underlying skin infection or diagnostic uncertainty
2. Referral to dermatologist may be indicated for lesions in cosmetically or functionally sensitive areas, depending on physician's comfort level and expertise
3. Abnormally large lesions may be referred to specialist
4. Cryosurgery may NOT be used if pathology requested or in areas with compromised circulation because surrounding tissue destruction will not heal

Materials

1. Local anesthetic
2. Cryosurgery
   - Liquid Nitrogen/Cryosurgical Hand-held Spray Delivery System
   - Styrofoam cup, cotton-tipped applicator, liquid nitrogen, +/-pickups

3. Excision: alcohol, pickups, small iris scissors, Drysol or similar styptic agent
4. Electrosurgery
    - Electrosurgical unit w/ or w/o smoke evacuator or bipolar electrocautery unit
5. Ligation
    - Suture (usually silk; could use synthetic absorbable) or Dental Floss

Procedure

1. Consent form completion after reviewing w/pt
    - Complications to address: bleeding, scarring, pain, infection, electrical burns, pigment changes
        - If not all tissue is removed, there is small risk of recurrence
        - If all tissue is removed, that lesion will not recur, but patient still at risk for more lesions in that area
2. Positioning
    - As needed for patient comfort, access and proper visualization
3. Anesthetic
    - As needed for patient comfort, however many lesions may be removed without anesthesia
    - Lidocaine 1% with or without 1:100,000 epinephrine (epinephrine is contraindicated in: fingers, toes, nose, or penis. A small needle (i.e. 27 gauge) is preferred and injection to base of lesion is adequate
    - Topical anesthesia may also be adequate and preferred for pediatric populations, i.e. EMLA cream. Topical should be removed after completion of procedure to ensure minimal systemic absorption.
    - Sometimes, simple ice cube applied over the lesion is enough to numb site for procedure
4. Removal Method
    - All have proven to be effective
    - Cryosurgery: Time efficient. Minimal set up needed. Results are slower and patient may have to return to have liquid nitrogen reapplied at second office visit.
    - Excision: quick and easy with immediate results; however, often need coagulation for larger lesions (electrical or chemical).
    - Electrosurgery: quick and easy with immediate results. Very good hemostatic control with similar cosmetic results as excision. Units expensive and not available everywhere. Electrical burns can be side effect if not careful .
    - Ligation: quick, easy, and cheap. No immediate results and may result in more pain for the patient.
5. Step-by-step
    - **Cryosurgery**
        - Liquid nitrogen is popular method for removing skin tags. Has multiple delivery modalities (described below) and frequently used without anesthesia
            - Spray Technique: Use steady stream at 1-1.5 cm away from lesion. Once lesion frozen (witnessed as it turns white), use short pulsating sprays to ensure it remains ice ball for up to

30 seconds. Should be allowed to thaw before second freezing
- Cotton Swab Technique: Dip cotton swab in glass of liquid nitrogen, then place with only mild pressure on lesion; remain there until ice ball forms for up to 30 seconds. Allow to thaw before re-applying.
- Pickups Technique: Dip pickups in glass of liquid nitrogen, then grasp base of skin tag with cold pickups. Allow an ice ball to form before releasing. Allow to thaw before repeating.

▪ Each cryotherapy technique usually repeated once, for total of two freeze-thaw cycles.

- **Excision**
  - ▪ Wipe lesion with alcohol. Pre-treatment with aluminum chloride can help.
  - ▪ Grasp lesion with pickups
  - ▪ Excise thin stalk of skin tag flat to skin w/sharp iris scissors, a 15 blade scalpel, or a Dermablade
  - ▪ CONSIDER local application of **aluminum chloride**, Monsel's solution or silver nitrate for hemostasis
    - Silver nitrate may leave silver salt tattoo formation
  - ▪ Alternative
    - Use iris scissor, as you close scissor, lift up slightly to trim off at base of skin tag. This prevents too much skin from being removed w/use of pickups
- **Electrosurgery**
  - Simple procedure that produces coagulation effect as lesion is removed
  - Anesthesia not usually needed unless a larger lesion. When needed, injectable lidocaine with or without epi can suffice (see Anesthesia above)
  - Power settings, usually starting low around 10 watts and increase as needed
  - Avoid prepping the lesion with alcohol or ethyl chloride to minimize skin burns

  ▪ Electrodessication
    - Electrode is placed in contact with the lesion to produce the desired destructive effects
    - With pickups, grab the apex of the skin tag and then lance the lesion using the electrode at the base. Electrode can be used to halt any further blood loss.

  ▪ Electrosection
    - Uses electrode as cutting blade to remove lesion with very little blood loss.
    - Used on lowest power setting possible to minimize heat damage and produce similar cosmetic results as a scalpel.
    - Usually reserved for larger lesions or those with wide bases.

        - If electrosection used, leaving a wide/full thickness lesion/site, suture may be needed
    - **Ligation**
        - No anesthetic needed
        - Dental floss or suture can be used to throw a knot around the base leading to ischemic necrosis of the lesion
        - Not practiced as much because of the time (several days) it takes to fall off. Some view as a rudimentary technique, but is effective and relatively painless.
6. Post-Procedure
    - Review signs or symptoms of infection with patient
    - In many cases, especially for tags with very small bases, no after care needed
    - Cryotherapy
        - Tag will become necrotic and fall off at home
        - Wash & pat dry daily
        - Band-aid if desired
    - Excision
        - Consider a bit of topical antibiotic ointment to promote moist wound healing and decrease scab formation
        - Band-aid if desired…not advisable in hairy areas, axilla or groin
        - Wash & pat dry daily
    - Electrosurgery
        - Wounds heal by secondary intention; need only daily cleaning with topical antibiotic application and adhesive bandage
        - If electrosection used, leaving a wide/full thickness scar, suture may be needed
    - Ligation
        - Skin tag will become necrotic and fall off at home
        - Can keep clean and cover with a bandage to reduce irritation
    - Let patients know that new skin tags may appear in the same area, but usually do not result from same lesion. With use of cryotherapy, lesions may need repeated treatment before falling off.

Pearls

1. Excisional approach
    - Aluminum Chloride very effective to prevent excessive bleeding after skin tag removed.

Complications

1. Listed above in consent

Follow Up

1. None required

References

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