TODAY'S WoundClinic

How I Treat: Hidradenitis Suppurativa

James V. Stillerman, MD, CWSP

Hidradenitis suppurativa is a chronic, relapsing, and debilitating inflammatory condition involving the follicular pilosebaceous unit located in the dermis. It consists of the hair root sheath and bulb; erector pili muscle; sebaceous gland, which opens directly into the follicle; and the coiled apocrine sweat gland, which elongates as it transverses the dermis and opens directly onto the skin, but also may enter the pilosebaceous unit at its infundibulum. The disease localizes to the axilla, inframammary region, and the inguinal/perineal area, often with bilateral involvement.

Hidradenitis suppurativa commences at puberty, affecting females 3:1 compared to males. Smoking and obesity are major contributory factors. Hygiene is not a factor. Genetic and family involvement are noted. Hormonal, premenstrual flareups with improvement during pregnancy raise the question of androgen influence. Immuno-inflammatory cytokines interleukin (IL) 12 and 23 as well as transforming necrosis factor (TNF) also play a role.

As far as pathology, ductal keratinocyte hyperplasia with lymphocyte inflammation causes an accumulation of intraductal cellular debris, which occludes the hair follicle unit. Glandular ductal dilatation with eventual rupture ensues leading to bacterial overgrowth and biofilm formation. Multiple localized abscesses develop, coalesce and form interconnecting draining sinus tracts. With chronic disease, deep seated tissue induration, and deformity, glandular destruction and scarring occur as the pathology progresses. Bacterial infection is secondary to obstruction and not a primary etiology.

Hidradenitis suppurativa affects patients' quality of life, often leading to psychosocial distress and the inability to work effectively.

Diagnosis and/or Staging

The diagnosis is by history and physical examination.

Hurley stages characterize the disease extent:[1]

- Stage I: single/multiple inflammatory nodules or abscesses without sinus track or scarring.

    A) mild, B) moderate, C) severe

- Stage II: recurrent widely separated nodules or abscesses with sinus track and scarring
- Stage III: diffuse wide involvement of multiple interconnecting abscesses with sinus tracts and scarring

How I Do It

- Multiple medical treatment options have been proposed with varying results.
- Surgery offers the best response for stage II and stage III disease, avoiding prolonged often unsuccessful medical treatment.
- Weight reduction and smoking cessation are important.
- Topical antibiotics are not recommended.
- Intralesional steroid injection and oral antibiotics such as tetracycline and clindamycin have been mentioned.
- Drug therapy options include: hormonal therapy oral contraceptive pills; metformin and TNF inhibitors such as infliximab IV injection; adalimumab (Humira, Abbvie) subcutaneous injection; cyclosporin steroid sparing immunosuppressant; retinoid (acitretin [Soriatane, Stiefel]) aimed at decreasing lipid synthesis and proliferation; a prednisone immunosuppressant, which decreases the inflammatory response and the migration of neutrophils; apremilast (Otezla, Amgen), a phosphodiesterase inhibitor that decreases TNF production; and carbon dioxide laser.

My Approach for Stage II Disease: The Punch Excision Technique

While some of the usual treatment plans may show improvement, they are prolonged, at times with side effects, and expensive. I favor a unique surgical approach that can be done in the office. This provides complete removal of the affected gland with little or no discomfort, which significantly decreases the recurrence rate, significantly shortens the treatment course, and leaves an acceptable cosmetic appearance that the patient can visualize and appreciate within 2 weeks.

Punch excision technique for stage II disease is an office or clinic procedure and requires local anesthesia only. I use 2% lidocaine without epinephrine. Multiple lesions can be removed at a single visit. There is minimal postprocedural pain and bleeding. Rapid healing ensues with a low recurrence rate as the offending gland is completely excised. No antibiotics are prescribed. A 4-mm punch biopsy tool is used to remove the draining sinus tract. This allows for minimal tissue destruction preserving skin bridges

between excision sites, which assists in healing. Excision sites are then covered with a foam dressing.

Postprocedural care is with a pH-balanced soap such as Dove or Johnson's baby shampoo. Over-the-counter analgesia works well. When there are communicating sinus tracts an unroofing technique can be performed, which converts the sinus tract or the tunnel into an open wound. This is then curetted and treated with a medicated foam.

Treating Stage III

Stage III disease is best treated with wide excision in the operating room under anesthesia. The disease is often extensive, deep with extensive scarring. The punch biopsy technique can be performed for satellite lesions, which may lessen the extent of wide excision.

James V. Stillerman, MD, CWSP, FACCWS, is the Medical Director of Samaritan Medical Center for Advanced Wound Care in Watertown, NY. He is board certified in advanced wound care by the American Board of Wound Management and has 35 years of experience including vascular surgery. Dr. Stillerman is a board member for Hospice in Jefferson County, New York. Most recently, he received the SAWC Grand Rounds award for his poster presentation the treatment of enterocutaneuos fistulas. Dr. Stillerman has initiated a wound care lecture series for teaching the medial students and medical residents. He also provides lectures to many of the regional wound care centers. He is currently is developing a wound care treatment template to assist the emergency department, local nursing homes and hospital with wound care and prevention. He also consults via telemedicine as an adjunctive evaluation tool.

Reference

1. Hurley HJ. Axillary hyperhidrosis, apocrine bromhidrosis, hidradenitis suppurativa, and familial benign pemphigus: surgical approach In: *Dermatologic Surgery: Principles and Practice* (Roenigk RK, Roenigk HH, eds). New York: Marcel Dekker, 1989; 729–39.

Treatment of Hidradenitis Suppurativa

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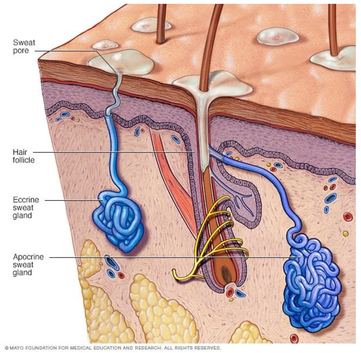
BACKGROUND:

Hidradenitis Suppurativa (HS) is a chronic relapsing and debilitating inflammatory condition involving the folliculo-pilo-sebaceous unit of the skin. The disease localizes to the axilla, inframammary and inguinal/perineal regions, often bilaterally.



It commences at puberty affecting females 3:1. Smoking and obesity are major contributing factors.

Genetic, hormonal, and inflammatory cytokines IL 12,23 and TNF-ά all are involved.

Pathology: ductal keratinocyte hyperplasia with occlusion of the follicular unit, bacterial overgrowth and biofilm formation. Multiple abscesses develop, coalesce forming interconnecting purulent draining sinus tracts. Scarring, glandular destruction and tissue deformity can follow.

Diagnosis: by history and physical exam.

Hurley stages (1989) characterizes the disease extent:

I Single/inflammatory nodules or abscess without sinus tract or scarring

II Recurrent widely separated nodules or abscess with sinus tract and scarring.

III Diffuse wide involvement of multiple interconnecting abscesses with sinus tracts and scarring.

HS affects patient's quality of life often leading to psychosocial distress and inability to work.

Multiple medical treatment options have been proposed with varying results.

Surgery offers the best response for Stage II & III disease avoiding prolonged often unsuccessful treatments.

Treatment Techniques For Stage II Disease

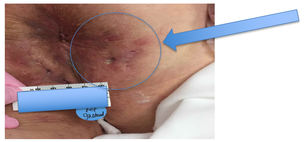
1. Punch excision
2. Unroofing technique for coalesced lesions

Needed: 4 mm punch biopsy, scissors and forceps, local anesthesia 2% lidocaine without epinephrine, silver nitrate for hemostasis as needed, foam dressing.

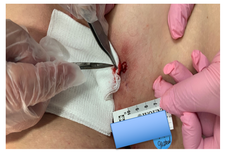
Punch excision technique for stage II disease

Technique: (multiple lesions can be excised)

1. Cleanse area to prepare for treatment.
2. Infiltrate lesion with lidocaine.
3. Use 4mm punch biopsy to excise all diseased tissue.
4. Use forceps to grasp excised lesion and scissors to remove any attaching tissue at its base.
5. Obtain hemostasis with digital pressure and silver nitrate sticks a needed.
6. Cover excision site with foam dressing.

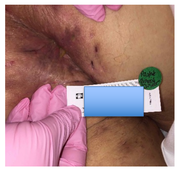


06/25/22 Right gluteal lesions



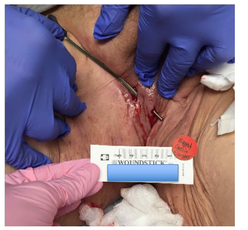
06/25/22 removal of base of lesion

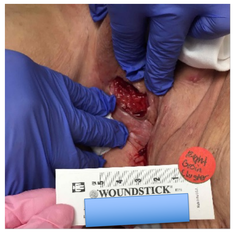
06/25/22 after punch biopsy



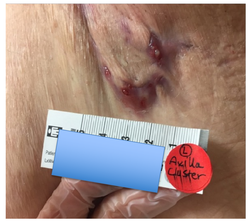
08/23/22 follow up

Unroofing Technique

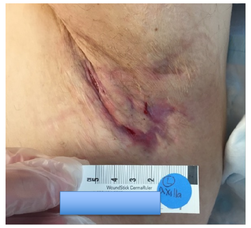




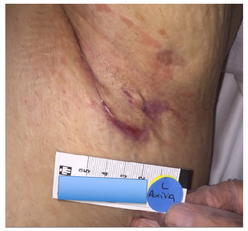
Removal of skin bridge and debridement of underlying diseased tissue.



03/28/19 Left axilla pathology



05/23/19



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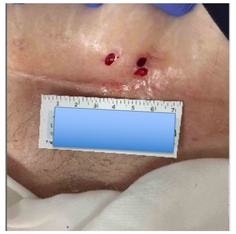
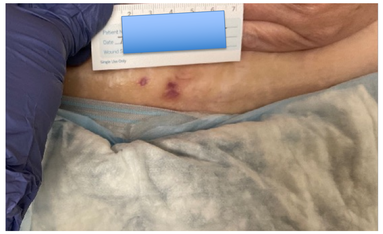


06/27/22 Abdomen



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CONCLUSION:

An excisional punch technique or unroofing, as presented, is an effective office treatment. Acceptable results obtained without recurrence at the excision site. This avoids prolonged and costly therapy. No antibiotics were used in the treatment of these lesions.