Vulvovaginal Disorders:
An algorithm for basic adult diagnosis and treatment

HIDRADENITIS SUPPURATIVA

What is hidradenitis suppurativa? (HS)

This is a chronic, recurrent disease that presents with sore, brownish-red “bumps” that look like “boils.” These very painful lesions are mostly found in hot, moist areas under the arms and breasts and in the groin, buttock, and peri-anal areas where hairs arise from sacs called follicles. Each hair follicle contains sweat and oil glands in addition to the hair shaft. The “bumps” appear suddenly, increase in size rapidly, and can then rupture under the surface of the skin or drain to the surface. This condition is sometimes referred to as “inverse acne” because it presents like the severe cysts, sinuses, blackheads, and scars of acne, but with lesions that tend to burrow under the skin rather than drain out. It is more common in women than in men.

Where is it usually seen?

It is most commonly seen in the axillae (armpits), under and around the breasts, in the creases of the groin, the mons pubis, the labia majora, the area around the anus, and on the buttocks. The pattern of involvement varies from patient to patient.

What is the cause?

This condition develops due to blockage of the sweat gland duct and/or hair follicles. Pores are tiny openings in the skin surface where the hair shaft comes out. In HS, pores are too small and tight. When the cells lining the follicle shed, as they do in a normal way, they cause a blockage of the follicle, the oil, and sweat gland ducts instead of moving out of the duct. Inflammation and irritation begin. The weak, blocked pore and hair follicle swell and eventually explode sideways underneath the skin. The reaction is like inflammation around a buried splinter or ingrown hair with the development of large, red, hot, painful swellings that eventually break down and drain material that looks like pus. But this is not an infection. The drainage is material called sebum from the oil glands. Bacterial infection, however, can occur as a secondary event.

This problem can be hereditary, so ask other family members about having similar problems or recurrent “boils.”

What are the factors that make this worse?

This condition is related to hormones. It commonly starts around puberty. It may get worse each month with the menstrual cycle. Male hormones called androgens are made in small amounts in women and are found in large amounts dairy products; androgens stimulate hair follicles to worsen HS. High glycemic diets raise insulin levels, and insulin makes receptors for male hormones open to receive them. Stress can be a factor. Friction in areas of involvement is often a problem. Anything that rubs the areas (tight clothing, menstrual pads, etc.) can cause the plugged and swollen ducts to break down more easily. Try to avoid any friction or irritation. Sweating can trigger a flare. Squeezing these “boils” or “cysts” will always make things worse.

Is this an uncommon condition?

This is not rare. It affects up to 1 in 300 patients.

What does it look like?

First, there are red, swollen, bumps that develop into "boils." These heal with pitted or "pouting" scars. The "boils" can be solitary, scattered in an area, or grouped together. Blackheads may be seen. Some patients have 1-2 areas involved while others will have many areas extensively involved. The grouped lesions may form a large swollen area that is connected by small tunnels under the skin, called sinuses. If you press on any areas of involvement you can probably find sebum coming out of openings nearby.

What does not cause hidradenitis suppurativa?

It is not due to infection or washing habits. It is not because one is overweight, although this may make the condition worse because of increased friction/rubbing from clothes, etc. Smoking does seem to make things worse and it may be an actual cause.

How is it diagnosed?

The diagnosis is made by recognizing the typical skin changes in the typical locations. The pattern of recurrent "boils" in these particular areas, especially when they do not respond to standard antibiotics, is a good clue. Normal boils 'point' and discharge vertically to the surface and do not make horizontal tunnels under the skin. They are caused by bacteria and treated well with antibiotics. Unlike the lesions of hidradenitis, they do not recur in the same place.

Why is this problem overlooked or missed?

Most medical students get little to no education on this subject. There is not much research money for this condition, so approaches to new and improved treatments is lacking. Both clinicians and patients think that the lesions are boils. Patients often suffer in silence due to embarrassment or previous misdiagnosis and treatment difficulties. This is not an easy condition to manage, so failures are frequent and patients (and some physicians) sometimes give up.

How is hidradenitis suppurativa treated?

Treatment depends on severity. Treatment may just involve medications that are used on the skin or taken orally. Surgery may be necessary in later stages.

To decide the best treatment for you, it is important to know how severe your problem is and this is done with a staging system that is referred to as Hurley's Criteria.

- **Hurley's Stage I** (75% of patients): there are one or several abscesses (a collection of sterile (non-infectious) or bacterial inflammatory cells and debris), one or several, but they do not have the small tunnels under the skin and scarring is fairly minor.
- **Hurley's Stage II** (24% of patients): there are recurrent abscesses with small sinuses under the skin and scarring.

There may be one or several of these complexes scattered in different areas, or small groups of them.

- **Hurley's Stage III** (1% of patients): there are large areas involved with multiple, interconnected, tunnels and tracks and draining lesions with a lot of scarring.

General treatment:

- It is important to reduce any friction in the areas where you have recurrent spots. Change to loose clothing such as loose boxer shorts; avoid underwear with seams that rub in areas that give you new lesions. Try to wear clothing that is loose and cool so that you are not overheated and sweating in those areas. Change underwear during the day if necessary.
- Try hard to reduce obesity and get down to ideal weight. It is important to decrease sugar intake and dairy foods.
- Hair removal: It is better not to wax or shave. Never pluck hairs, including those that are ingrown. If shaving must occur, soaking for five minutes first, then lathering well with Dove for sensitive skin soap and using a fresh blade, shaving in the direction of the hair, may not make the condition worse. Laser hair removal on the bikini line may be acceptable.
- Antiseptic washes can be helpful. These do not cure anything but can help in the areas of odor and drainage. Use a triclosan-containing cleanser like Dial antiseptic daily.
- Stopping all nicotine from any source is important. Nicotine stimulates plugging of the pores. Toxins in smoke appear to interfere with proper healing.
- For women it is best to block male hormones.
    a) This can be done using combined (estrogen and progestin) birth control pills (BCP) containing the most recently developed progestins: norgestimate, desogestrel and drospirenone. These are low in male hormone activity. Earlier progestins such as norgestrel and norethindrone used in combined BCP are high in male hormone activity and would antagonize the hair follicles, as would medroxyprogesterone.
    b) When combined with the standard estrogen used in the BCP (ethinyl estradiol), some (not all) of the newer generation progestins have an increased risk of blood clots compared with the older progestins. It is important to discuss this possibility with your clinician.
    c) An extra male hormone blocker called spironolactone can be used alone or with anti-androgenic BCPs, to enhance their activity.
- To decrease **inflammation**:
    a) Topical antibiotics – 1% clindamycin lotion applied morning and night
    b) Systemic antibiotics – oral antibiotics can be used for short periods of time for their anti-inflammatory (not anti-infective) effect or for weeks/months: tetracycline, doxycycline, clindamycin, amoxicillin/clavulanic acid, Bactrim or in combination (like clindamycin and rifampin).
    c) Oral zinc gluconate can be given 50 mg orally twice a day with food; Vitamin C 500 mg taken with the zinc (twice a day) may help strengthen pores.

d) For an odd painful spot an injection of cortisone called triamcinolone acetonide (Kenalog) may be used, and it may quickly take the inflammation down over 2-3 days.

e) Oral cortisone, (prednisone or medroxyprednisolone) may be given for short periods or intermittently to stop inflammation.

- For Hurley stage II – systemic anti-inflammatory antibiotics are used as in stage I for weeks or months. Clindamycin may be combined with rifampin. Intralesional triamcinolone is used. Dapsone can be very useful.
- Surgical treatment is important. If there are spots that keep recurring and breaking down, it is a sign that there is foreign material trapped under the skin in a cyst or tunnel referred to as a sinus. These have to be surgically unroofed. This area will heal in over 2-3 weeks.
- For the most severe Hurley's stage III the treatment is mostly surgical and requires the help of a knowledgeable dermatological and surgical team. Before treatment is carried out, the patient will need to be on anti-inflammatories, which may involve the antibiotics but also a systemic cortisone or other special medications.
- Preliminary work suggests that a zero dairy diet may lead to clearing in some patients. The diet needs to be well-controlled: nothing at all from cheeses, yogurt, milk, butter, cream and cottage cheese, or whey, casein, mild solids, etc. See the special diet at www.thepaleodiet.org

What will happen to me?

Some patients clear with early care and avoidance of all the irritants, dairy and highly refined flour and sugar-containing foods, male-type hormones, smoking, and stresses that appear to trigger the problem. They can be kept in Stage I or actually cleared. Patients in Stage II can be brought back to Stage I with aggressive care. And even some Grade III can be brought back to Stage II and Stage I. The drugs and diets and hormones need to be used for many years. If this cannot be done with drugs and diet, surgical treatment of the areas may be necessary.

For more information:

www.hs-foundation.org
www.godairyfree.org
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