



Vulvovaginal Disorders: An algorithm for basic adult diagnosis and treatment

CONTACT DERMATITIS IN THE VULVAR AREA

What is vulvar contact dermatitis?

This is a general term used to describe inflammation of the skin resulting from an external agent that acts either as an irritant or an allergen to produce a rash that can be acute (or sub-acute) or chronic. Some women who have a strong history of allergies, eczema, asthma, and easy reactions to skin irritants elsewhere on the body, may have a propensity for either irritant or allergic contact dermatitis.

In the vulvar area, this may involve any area of the vulva from the mons pubis to the anus and even out onto the thighs.

What is the difference between allergic and irritant contact dermatitis?

Allergic disorders occur when a person's immune system reacts to normally harmless substances in the environment, as if they were toxic pathogens. While allergic reactions of the respiratory system result in asthma or a runny nose and eyes, allergic reactions in the vulva present with symptoms of itching. Because these are true allergic reactions (not irritant reactions), they usually occur between 48 hours to days after exposure, sometimes making identification of the causative "allergen" difficult. Allergic reactions in the vulvar area are usually caused by exposure to a perfume, preservative, or a medication that has been applied to the skin, or to a plant such as poison ivy. Very rarely, semen can cause an allergic reaction.

Allergens

- Antibiotics — neomycin, bacitracin
- Anesthetics — benzocaine, dibucaine
- Preservatives — parabens, imidazolidinyl urea, propylene glycol
- Perfumes — balsam of Peru
- Moisturizers — lanolin
- Plants — poison ivy
- Rubber — gloves, condoms, and diaphragms
- Spermicides
- Seminal plasma fluid

Irritant reactions are more common than the allergic reactions.

Acute irritant contact dermatitis occurs very rapidly after exposure to an irritant, resulting in redness, swelling, and sometimes, blistering. The reaction may take place within minutes or up to 24 hours after exposure. Women are often more aware of these reactions because of their rapid onset and the possible blistering, although by the time women come



Vulvovaginal Disorders: An algorithm for basic adult diagnosis and treatment

into the office, the blisters may have already collapsed. Rather than itching, women complain of burning, stinging, or pain. The irritants that cause an acute reaction are usually medications applied topically to the vulva to treat warts or yeast, laser treatments, or harsh chemicals in products meant to “cleanse” the vulva and vagina.

Chronic irritant contact dermatitis may be more difficult to diagnose than the acute reactions because symptoms of irritation, pain, soreness, or rawness can develop slowly.

Chronic irritant contact dermatitis is usually caused by prolonged exposure to milder forms of irritants such as soap, water, urine, or feces, topical products such as feminine sprays or washes, wet wipes, bases of some gels or creams, or low-grade yeast infections. Ordinary exposure to water, soaps, toilet paper, pads, tampons, etc, has not been shown to cause irritant reactions.

Irritants

- Soaps and detergents
- Fabric softeners
- Feminine hygiene products — pads, diapers
- Wipes, feminine deodorant sprays
- Physically abrasive contactants — face cloths
- Sponges
- Sweat, urine, feces, etc
- Hot water bottles — Thermally damaging
- Podophyllin and similar products
- Trichloroacetic and bichloroacetic acid
- Laser and other hair removal processes

What are the symptoms of allergic contact dermatitis?

Itching, swelling, and irritation are most common. If the condition is severe, there may be pain or burning with urination. An acute allergic reaction can produce redness and blisters, with weeping skin. The red patches and plaques can be bright red.

What are the symptoms of irritant contact dermatitis?

This rapid reaction usually presents with irritation, burning, or rawness rather than itching. The skin may look reddened, in darker red or brownish tones. It can appear dry, fissured, and chapped looking, but does not usually swell.

How is contact dermatitis diagnosed?

The history relating to products used and the timing of events, as well as the appearance of the skin helps in diagnosis. Biopsies are not usually specific, but do show inflammation. It's very important not to self-diagnose. Many people think



Vulvovaginal Disorders: An algorithm for basic adult diagnosis and treatment

they have yeast infections and self-treat for yeast, delaying getting the treatment they really need. Even though yeast may not be involved, it is good to rule it out with culture. Because there may be secondary infection, bacterial cultures may also be needed. North American Series patch testing can identify irritants or allergens, but take time and will need to be scheduled for a later date.

What is the treatment?

The most important treatment is to identify the irritant or allergen and stop exposure to it. For extensive allergic reactions, a dermatologist or allergist should be consulted.

Immediate care involves sitting in warm or cool water in a bath or sitz bath or, if this is impossible, using cold or warm compresses, then patting dry gently and applying plain Vaseline® as a protective barrier.

Clothing must be light weight and well ventilated, usually cotton, without any binding or chafing.

Topical corticosteroids may be prescribed:

- Betamethasone-17-valerate 0.1% OR Triamcinolone acetonide 0.1% ointment applied twice a day in a thin film until improved

If symptoms are severe:

- Prednisone 0.5 to 1 mg/kg/day orally in a tapering dose over 14-21 days
- Triamcinolone acetonide 40 mg/mL (Kenalog 40) 1 mg/kg IM single dose
- Antihistamine (as a sedative): hydroxyzine 25-75 mg orally at bedtime

After symptoms are controlled, the frequency of application and the potency of the cortisone can be gradually reduced, moving from mid-potency to milder steroids such as 1% to 2.5% hydrocortisone or desonide 0.05% ointment. Creams are avoided.

It may be necessary to prevent yeast during the treatment with oral fluconazole or vaginal clotrimazole. It also may be necessary to treat superimposed bacterial infections with an antibiotic.