



Contact dermatitis

Synonyms: Irritant contact dermatitis, allergic contact dermatitis

Clinical Presentation: Contact dermatitis is an inflammation of the skin resulting from an external agent. There are two forms of contact dermatitis, irritant and allergic. Irritant contact dermatitis is immediate; allergic contact dermatitis may take up to two days to develop unless there has been pre-sensitization. Patients may be secretive and not report the use of irritating products.

Irritant contact dermatitis:

A severe irritant contact dermatitis is the result of a caustic skin reaction and can (in rare instances) cause ulceration. Irritant contact dermatitis can be acute or chronic with burning, pain, dysuria, swelling, and irritation. There can be varying degrees of erosion and/or ulceration. Lesions are generally limited to the site of application of the product. At times there is oozing with variable crusting, with or without secondary infection.

The top three causes of irritant contact dermatitis which may cause ulcers are:

1. Excessive cleansing. Some patients become obsessed with cleanliness and wash the vulvar area with soap or other cleansers multiple times each day, causing irritation. Some may become fixated on symptoms and use very harsh cleansers.
2. Destructive chemicals used for medical indications (e.g. trichloroacetic acid, 5-fluorouracil, podophyllin, bichloroacetic acid) or over-the-counter symptom relief (e.g. 20% benzocaine).
3. Wetness due to urine, feces, or menstruation.

Generally, identifying the topical agents causing vulvar ulcers is done by taking a thorough patient history. Irritant contact dermatitis ulcers occur immediately after the agent causing the dermatitis is placed on the skin. The depth of the lesion depends on the chemical agent and the duration of exposure. Ice and freezer packs can also cause ulcers if left in contact with vulvar skin too long. There are some products that may be used, especially by patients concerned



about being “dirty” or “smelly”, such as 20% benzocaine, lye, Lysol, witch hazel, or even kerosene. In these cases, the responsible irritant may not be obvious unless a detailed and targeted history is obtained.

Allergic contact dermatitis of the vulva:

Allergic contact dermatitis lesions consist of painful, red, swollen, papular or vesicular eruptions at the site of the contact. In very severe reactions ulceration may occur. This condition results from an allergic reaction to a low dose of a substance (e.g. poison ivy, neomycin), and is a type IV delayed hypersensitivity reaction. With allergic contact dermatitis, it takes 24 to 48 hours for the ulcers to develop once the patient is exposed to the substance. However, once an allergy has developed, reactions can occur within 24 hours. Ulcers are almost never seen in this condition unless they are secondary to trauma from scratching or infection.

Diagnostic Criteria: History is most important in identifying the cause of a vulvar ulcer from a caustic chemical/irritant or allergic contact dermatitis. At times, a biopsy is helpful.

Treatments:

- Identify and discontinue the offending agent, if possible. Be sure to elicit history for and eliminate the use of over-the-counter remedies and wet wipes.
- Gentle vulvar skin care, including hand held showerhead irrigation, or sitz baths with plain warm water are recommended. The skin should be patted dry with a soft cloth. Avoid wash cloths, loofas, plastic scrubbers, and hair dryers.
- Restore the skin’s barrier function after soaking with topical application of plain petroleum jelly or plain zinc oxide. These may need to be reapplied after toileting. Use these agents at least twice daily.
- Pain may be managed with topical 5% lidocaine ointment, 2% lidocaine jelly, 4% aqueous lidocaine solution (may not be tolerated if the skin is too raw), and nonsteroidal anti-inflammatory drugs as indicated.



- Superinfection should be managed with appropriate antibiotics. Laser burns may be managed by occlusive twice daily application of silver sulfadiazine cream.

Follow Up: Two week follow up is recommended to monitor response to treatment.

References:

Schlosser BJ. Contact dermatitis of the vulva. *Dermatol Clin* 2010 Oct; 28(4):697-706.

Margesson LJ. Contact dermatitis of the vulva. *Dermatol Ther* 2004; 17(1):20-7. Review.

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