Common Chronic Vulvar Itching:
Causes and Treatment

Overview: little research available on diseases that cause vulvar itching; most information extrapolated from research focusing on other parts of body; off-label treatments and help from compounding pharmacies often necessary; for example, preparations of steroids for rectal skin sometimes used in vagina

History: open-ended questionnaire may be used to obtain important historical clues for gynecologist, such as whether patient having itching or pain, which treatments already tried, and whether patient immunosuppressed; disorders that cause itching differ from those that cause pain; pain refers to irritation, rawness, burning, stinging, aching, stabbing, or soreness; irritation should be distinguished from itching; itching refers to sensation that makes patient want to rub and scratch

Itching: acute — most likely due to yeast; differential diagnosis also includes irritant contact dermatitis, trichomoniasis, and herpes infection; chronic — rarely due to infection; most common cause of chronic itching lichen simplex chronicus (LSC); LSC actually localized thickened eczema; synonyms include atopic dermatitis, neurodermatitis, and squamous hyperplasia; lichen sclerosus (LS) another cause of itching; lichen planus (LP) may cause itching, but more often produces pain, irritation, and rawness; other disorders associated with itching include contact dermatitis, psoriasis, and psychologic factors

Itch-scratch cycle: patients with tendency toward atopy (~20% of population) experience itching in response to stimuli that produce irritation in other patients; itching and scratching cause rash of LSC (rash resolves in patients who do not scratch affected area); with scratching and rubbing, skin forms protective calluses

Variation in appearance: patients with dark skin may present with dark areas rather than redness; modified mucous membranes of skin may appear white when thickened; thickened skin in patients with LSC may appear white when moist, but loses its whiteness after area dries; severity of itching may not correlate with changes on skin

Treatment: LS, LSC, LP, and psoriasis treated with steroids; patient should understand condition may be managed but not cured; irritants, washing with soap, drying area with hair dryer, and using panty liners should be avoided

Sleep: medications not effective for itching; sedatives useful because itching often most severe at night; unlike newer hypnotic agents that result in light sleep, amitriptyline and doxepin preferred because they produce deep sleep

Steroids: ultrapotent topical formulations needed, especially on modified mucous membranes; patient should not discontinue use prematurely; evaluate patient after 1 mo to assess progress, ensure that medication applied in proper areas, and check for side effects; treatment with steroids needed to break itch-scratch cycle

Infections: should be identified and treated; although yeast and staphylococcal infection (foliculitis) do not cause chronic itching, they may still play role; patients with superimposed staphylococcal infection may be treated with cephalaxin and petroleum jelly in addition to amitriptyline and clobetasol

Long-term treatment: patients of African descent may develop severe LSC with lichenification of vulva and other areas, and may need to use medication over long term; black patients less prone to develop atrophy of skin

Lichen sclerosus: etiology — itching often associated with pain because skin fragile; may occur at any age, but found most often in postmenopausal women and second most often in prepubertal children; postmenopausal hypoestrogenism may lead to increased symptoms; etiology multifactorial, with autoimmune and familial components; presentation — classic appearance white, crinkled plaques, but some patients have white areas with other changes of texture (eg, waxiness, shininess, or hyperkeratosis); cancer most prevalent in postmenopausal patients with thick hyperkeratotic areas; LS sometimes subtle; often begins on clitoral hood and perineal body; associated with purpura; urine and fecal incontinence possible, especially in children and elderly women; patients may have erosions brought on by sexual activity, with resulting dyspareunia; scarring may occur in late disease; diagnosis — biopsy may be performed, but photograph showing classic LS equally useful; treatment — testosterone acts as moisturizer, but not effective treatment; emollients and moisturizers helpful

Tapering of steroids: unlike LSC, LS does not resolve; only ~15% of affected women able to stop medications; itching, burning, and dyspareunia may not recur until LS well-established, so treatment should be based on signs rather than symptoms; when symptoms resolve, superpotent steroid may be decreased to 3 times weekly, or patient may be switched to daily treatment with midpotency steroid such as...
triamicinolone; superpotent steroids also treatment of choice for children
Other issues: patients with erosions likely to develop secondary bacterial infections and may require cephalaxin or doxycycline for first week of treatment; hyperkeratotic areas that feel indurated or do not respond to treatment should be biopsied; even if biopsy benign, recalcitrant thick skin must be followed carefully for development of malignancy (may be treated with steroid injections or excision, then rebiopsied)

Lichen planus: lacy white areas visible on labia minora; erosions in vagina and mouth common; pain more prominent than itching

Contact dermatitis: 2 types; irritant — may be associated with excessive washing or topical application of irritating agents; most patients have burning symptoms; allergic — reaction to allergen (eg, neomycin, combination of bacitracin, neomycin, and polymyxin B [Neosporin], topiphenhydramine [eg, Aller-Dryl, Benadryl, Dermarest], benzocaine, benzocaine and resorcinol [Vagisil, latex]); history may reveal likely contactant such as bar soap or wet wipes; treatment — includes avoidance of allergen and treatment as for LS or LSC; resolution may be slow (up to 1 mo) because allergen must grow out of skin; chronic problems take time to resolve, and patients should not stop treatment prematurely

Psoriasis: etiology — sometimes causes itching, especially in genital area; psoriasis vulgaris characterized by well-demarcated, heavy, silvery scales, but lesions often look different on vulva because moist skin does not show white or silvery scales; psoriasis common autoimmune condition in which skin grows too quickly and becomes red, thick, and scaly; tends to appear in areas of irritation (Koebner phenomenon) such as elbows, knees, and genitalia; psoriasis does not affect mucous membranes, so not seen in vagina, vestibule, or mouth; in skin folds, lesions appear red and shiny; although lesions of psoriasis usually well demarcated, genital lesions may not be, especially if patient scratching area; differential diagnosis — patients commonly have eczema on top of psoriasis; lesions of inverse psoriasis similar to those of yeast, so psoriasis should be considered in patients who do not respond to treatment for yeast infection; scalp lesions and fingernail pits possible; psoriasis sometimes confined to vulva; appearance of LS, irritant contact dermatitis, and psoriasis can be similar, so biopsy possibly needed; however, biopsy may fail to reveal diagnosis; patients who do not respond to treatment may have itching due to psychologic factors (counseling and treatment for anxiety may be needed); atypical vulvodynia also possible

Summary: patients with vulvovaginal diseases often overtreated for yeast; diagnoses made by appearance and by looking at other skin surfaces; biopsy often not diagnostic; most noninfectious causes of itching may be treated with superfotent steroids; most conditions manageable but not curable; LS and LP associated with cancer

Vulvovaginal Symptoms: Diagnosis and Therapy

Approach to vulvovaginal conditions: consultants — having network of colleagues (eg, physical therapist, sex therapist, neurologist, pain specialist) helpful; care of patients with vulvovaginal conditions time consuming, but early treatment beneficial; psychiatric comorbidities — patients with long-standing symptoms may develop anxiety and depression; after first addressing physical problem, managing psychiatric sequelae improves likelihood of successful treatment; vulvo-vaginal symptoms worsened by anxiety and depression, but not caused by them; diagnosis — chronic symptoms rarely caused by yeast or bacterial vaginosis; subtle findings may cause severe symptoms (eg, small fissures may be associated with severe burning on urination); when possible contributing factor found, physician should treat and reevaluate; patients should be told in advance that interventions not guaranteed to work; those with long-standing problems often have multiple conditions

Wet mount: for patients with vulvar pain, consider using small Pederson speculum rather than Graves speculum; wet mount helpful for diagnosis; in addition to allowing detection of yeast, bacterial vaginosis, trichomoniasis, and atrophic vaginitis, wet mount may reveal inflammatory vaginitis; in many women with symptoms of vulvodynia, burning, irritation, rawness, or itching, vulva appears normal or slightly reddened, but vagina inflamed; purulent discharge of inflammatory vaginitis may cause irritant contact dermatitis of vestibule; normal wet mount — features large, folded, mature epithelial cells shed from well-estrogenized vaginal mucosa, ≤1 white blood cell (WBC) per epithelial cell, abundant lactobacilli, and pH <5; abnormal findings — replacement of large flat epithelial cells with small rounded parabasal cells suggests shedding from thin atrophic vaginal mucosa; patients often report feelings of dryness and rawness; patients with parabasal cells and numerous WBCs may have inflammatory vaginitis or atrophic vaginitis, desquamative inflammatory vaginitis, LP of vagina, pemphigus vulgaris, cicatricial pemphigoid, or other skin diseases that affect mucous membranes; wet mount may indicate abnormality even when it does not provide diagnosis; bacterial vaginosis associated with lack of WBCs

Examination of vulva: on vulva, skin diseases often do not have classic appearance; LSC, psoriasis, and irritant contact dermatitis look alike, with redness and subtle scaling; in addition, most conditions can produce scarring; although LSC and LP most commonly associated with scarring, any condition can produce nonspecific scarring and loss of architecture, including psoriasis, LSC, menopausal atrophy, blistering erythema multiforme (also called Stevens-Johnson syndrome or toxic epidermal necrolysis [TEN]), LS, and cicatricial pemphigoid; often, these conditions cannot be distinguished by appearance

Approach to examination: inspection of mouth may reveal lesions of mucous membranes, such as those of LP, pemphigus, pemphigoid, Stevens-Johnson syndrome, or TEN; classic LP characterized by white, lacy, interlocking striae; LP and LS may coexist; when diagnosis in doubt, biopsy indicated but not always diagnostic; specimen and photograph may be sent to dermatopathologist; areas chosen for biopsy should have visible abnormalities (eg, bump, erosion, localized area of redness or whiteness); biopsies should be sent to dermatopathologist or gynecologic pathologist with expertise in inflammatory skin diseases; diseases that appear atypical on vulva may also have atypical histologic appearance; clinician should provide pathologist with differential diagnosis under consideration

Selection of areas for biopsy: depends on lesion; erosion biopsy should include normal skin and part of erosion; include areas of white skin with change of texture; modified shave biopsy less invasive than punch biopsy; shave biopsy heals better, and most diseases of interest found in upper layers of skin; shave biopsy may be performed by taking stitch and then snipping beneath it; firm area — for any area that may be neoplastic, punch biopsy required to obtain superficial and deep layers; other recommendations — if possible, midline should be avoided because it does not heal as well as other areas; each morphology should be biopsied, but multiple biopsies of similar areas not necessary; patient should be informed that biopsies do not always provide diagnosis, but may rule in or out important entities, such as cancer

Results of biopsy and implications for management: differential diagnosis may be narrowed with assistance of pathologist and histologic classification of skin diseases from International Society for the Study of Vulvovaginal Disease; if tumor and infection ruled out by biopsy and hypooestrogenism ruled out with wet mount, patients with itching or visible skin disease may be treated with topical steroid and reevaluated; vulvodynia may be diagnosed when patient has pain, does not respond to
treatment, and has no changes on physical examination, wet mount, or cultures

**Counseling patients:** physician should educate patients about their disease; patients should understand that condition may be managed, but not cured; handouts may be helpful for patients who have never heard of LS, LP, vulvodynia, and other conditions; ≈20% of women develop chronic vulvar symptoms at some time during their life; prevalence of chronic undiagnosed genital symptoms in women =10%; handouts allow women to understand their condition and feel less isolated; photographs documenting course of illness may be sent home with patients

**Management:** treatment should address irritating contactants, low estrogen, and other contributing factors; creams should be avoided on vulva because they often contain alcohol and produce burning; ointments and oral medications preferable; steroids and estrogens should be provided in topical forms; using petroleum jelly and mirror, physician may demonstrate to patient quantity of topical medication to use and where and how to apply it; after applying medication, patient should seal area with petroleum jelly; if relevant, patient should be reassured that condition not cancer, not sexually transmitted, and not harmful to fertility

**Reevaluation:** if patient not improving, clinician should first determine whether directions being followed; asking patient to apply topical medication in office may reveal incorrect application; patients who flare frequently should be examined during flares for other conditions such as herpes; patients should be rechecked for irritant contact dermatitis or allergic contact dermatitis because they may resume previous practices once their symptoms improve; reevaluation allows physician to detect new problems, conditions not detected on initial examination, and misdiagnosed entities; physician responsible for ensuring patient does not have cancer or vulvar intraepithelial neoplasia

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**Suggested Reading**

VULVOVAGINAL DISORDERS

To test online, go to www.audiodigest.org and sign in to online services.
To submit a test form by mail or fax, complete Pretest section before listening and Posttest section after listening.

1. What is the most common cause of chronic itching of the vulva?
   (A) Lichen simplex chronicus (LSC)
   (B) Contact dermatitis
   (C) Lichen sclerosus (LS)
   (D) Psychologic factors

2. Which of the following disorders is a vulvar manifestation of eczema?
   (A) Lichen planus (LP)
   (B) LSC
   (C) LS
   (D) Psoriasis

3. Which of the following vulvar disorders is most likely to present with pain?
   (A) LP
   (B) Eczema
   (C) Psoriasis
   (D) LS

4. Lacy white lesions on the vulva are typical findings in patients with:
   (A) Stevens-Johnson syndrome
   (B) LSC
   (C) Allergic contact dermatitis
   (D) LP

5. Large mature epithelial cells, abundant lactobacilli, and ≤1 white blood cell per epithelial cell are seen on a wet mount. Which of the following is the correct diagnosis?
   (A) Pemphigus vulgaris
   (B) LP
   (C) Psoriasis
   (D) Normal wet mount

6. Which of the following disorders is most likely to be associated with scarring on the vulva?
   (A) Menopausal atrophy
   (B) Blistering erythema multiforme
   (C) LP
   (D) LS

7. A punch biopsy of the vulva is preferred over a shave biopsy when the differential diagnosis includes which of the following?
   (A) LSC
   (B) Psoriasis
   (C) Neoplasia
   (D) Any of the above

8. Which of the following is the primary treatment for a patient with vulvar itching, normal estrogenization on wet mount, and no evidence of tumor or infection?
   (A) Amitriptyline
   (B) Emollients
   (C) Topical steroids
   (D) Psychotherapy

9. A patient presents with vulvar pain and no other historical or physical findings. She does not respond to topical treatment. Which of the following is the most likely diagnosis?
   (A) Vulvodynia
   (B) Depression
   (C) Anxiety
   (D) Staphylococcal superinfection

10. What percentage of women develop chronic vulvar symptoms at some time during their lives?
    (A) 10%
    (B) 15%
    (C) 20%
    (D) 25%

Attention, Accreditation Participants
The cutoff date for logging 2014 credits is December 31. Test forms received after that date will be accrued to 2015.

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