Age-Associated Vulvovaginal Diseases

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Disclosures
• Very little regarding the treatment of vulvar disorders is evidence based
• I have no financial support beyond the University of Iowa
• Incoming President ASCCP + ISSVD
• Thanks to Diane E Elas, ARNP

Objectives
Following this presentation, participants will
– Employ strategies to diagnose
  • Consider the need for biopsy
  • Initiate initial treatment
for the most common and the most significant age-associated vulvovaginal diseases
Pediatric Patients

- Contact Dermatitis
- Lichen Sclerosus
- Labial Adhesions – not covering
- Trauma – not covering – but, always consider

Adolescents

- Contact Dermatitis
- Lichen Simplex
- Genital Warts – not discussing

Reproductive Age

- Contact Dermatitis
- Lichen Simplex
- Lichen Sclerosus
- Dyspareunia/Vulvodynia – not discussing
- Vaginitis – not discussing
Postmenopausal

- Contact Dermatitis
- Lichen Simplex
- Lichen Sclerosis
- Lichen Planus
- Atrophic Vaginitis / “GSM” – not covering

Across the ages….

- Always consider cancer / precancer
  - Vulvar HSIL (HPV related)
  - Differentiated VIN (lichen sclerosis related)

- More so with increasing age
  - Mid-reproductive to post-menopausal
  = BIOPSY if doubt!
Common causes of Chronic Vaginitis  
(referral population- Nyirjesy 2006)

- 200 new patients to vulvar specialty clinic

- **Contact dermatitis** 42 (21%)
- Recurrent candidiasis 41 (21%)
- Atrophic vaginitis 29 (15%)
- **Vulvar vestibulitis** 25 (13%)
- **Lichen simplex or sclerosus** 22 (11%)
- Bacterial vaginosis 13 (6.5%)

Complexities of care “Down There”

Among “top 10” as reasons for seeking care from general practitioners

- Most common complaint = “yeast infection”
  - Typically self medicate prior to seeking care
  - Hygiene routine often **deeply ingrained** (by mothers)
    - Douching (“washing”)
    - Cleaning frequency
    - Products used (detergent, soaps, feminine hygiene products)

Education key to compliance with plan = TIME$$

- Anatomy; rationale for treatment plan / products

Evaluation

History and Physical (of course) – NO PHONE DIAGNOSIS!!!

- pH testing
  - 3.8 to 4.5 during reproductive years
  - ≥ 4.7 pre-menarche and post-menopausal
- “Whiff test” 10% KOH (fishy = positive)
- Microscopy (Wet prep)
  - Saline
  - KOH
- Consider
  - cultures (candida and trichomonas)
  - Point-of Care tests for pH and amines, trichomonas
  - Biopsy
Positive Culture\textsuperscript{1} Bacterial Vaginosis

- Clinical criteria +
  - Affirm VP III (DNA probe) – 95 to 99 sen/spec
  - OSOM BVBlue (chromogenic) – 88-94 sens, 95-96 spec

- PCR/NAA tests – sens/spec for BV is lower = overdiagnosis (BUT, GREAT FOR TRICH)

- Culture – G. vaginalis detected 55% normal = overdiagnosis

When to Biopsy

- Anytime you are unsure of the diagnosis!!
- The morphology of many dermatoses often appears different on genital skin.
- R/O cancer or dysplasia.
  - Presumed genital warts that fail to respond to 2-3 office treatments
  - Vulvar changes that do not respond to medical therapy (lichen sclerosus or lichen simplex)
  - Appearance is concerning for neoplasia

Disclaimer

- Limited “research” regarding vulvar vaginal disorders
  - Especially regarding treatment + outcomes

- Nothing “FDA” approved for treatment of specific disorders
  - Except infection and atrophy = “Off label use”
Contact Dermatitis

- Vulvar BURNING / irritation / CC "yeast"
- Hygiene
  - Irritants…. #1
  - Menstrual hygiene
  - Maybe bathing issues
  - Deeply ingrained / "no problems in past"

Clinical Signs

- Mild erythema, swelling, and scaling
- Marked erythema, fissures, skin thickening, erosions, ulcers

Margesson 2004
Contact

- Diagnosis
  - History and physical
  - Microscopy – R/O concurrent infection
- Treatment
  - Stop offending agent(s)!!
  - Soaks
  - Skin protection (Zinc, Vaseline)
  - Topical steroid OINTMENT
  - Education; consider “partner” products!
Common Vulvar Contactants

ALLERGENS
- Benzocaine (Vagisil)
- Preservatives
- Neomycin
- Latex condoms
- Chlorhexadine (K-Y)
- Lanolin (A&D ointment)
- Perfume
- Nail Polish

IRRITANTS
- Soaps/cleansers/ Pods
- Sweat, urine, feces
- Creams (alcohol)
- Douches ("washes")
- Medications – TCA, 5FU
- Spermicides
- Panty liners
- Wipes

Contact Dermatitis
Diaper dermatitis

- Characterized by red scaling plaques that may exhibit maceration and erosion
- Sharp margin where the diaper ends
- Clinical diagnosis; response to therapy confirms (i.e.- no improvement consider biopsy)
- Differential diagnosis
  - Psoriasis
  - Seborrhea
  - Streptococcal infection
Severe Contact Dermatitis

Diaper Rash
Urine + Feces

Diaper Dermatitis - Treatment

- Hygiene
  - Frequent diaper changes / airing
  - Copious barrier (zinc, petroleum jelly)
  - Avoid “baby wipes”
- Mild topical steroid ointment (not cream)
  - 1% hydrocortisone
  - +/- topical antifungal
  - nystatin + triamcinolone (use sparingly)

Treatment Contact Vulvitis

- Remove All Potential Irritants
- Soaks
- Skin Protectant
  - Zinc oxide ointment / petroleum / Veg. oil
- Low to Medium Potency Steroid Ointment
  - Triamcinolone – nystatin (Mycolog II)
    - Triamcinolone (Kenalog)
    - Hydrocortisone butyrate (Locoid)
    - Hydrocortisone valerate (Westcort)
WaterWipes = OK!!
“99.9% water and a drop of fruit extract”

55 year old presents with 6 month history of persistent vulvar itching. Has treated with over-the-counter antifungals and provider RX for presumed yeast and BV without resolution. History of allergies and eczema.

What is your diagnosis?
A. Lichen simplex
B. Lichen sclerosus
C. Psoriasis
D. Cancer

True or False
You have just diagnosed lichen simplex chronicus in a 55 year old nulliparous woman. She wonders why it is presenting now, i.e. she “has not changed anything”. You tell her that lichen simplex chronicus occurs primarily in mid to late adult life:

A) True
B) False
Lichen Simplex = Eczema

- Characterized by lichenified plaque with intense and unrelenting itching (+/- scaling)
  - Sleep disruption
- Occurs primarily in mid- to late adult life
- Up to 75% have history of atopic disease
- Diagnosis is clinical

Lichen Simplex Chronicus

- Ditto contact, but add:
  - Itching / Scratching
  - Need to break cycle (control nocturnal scratching)
    - Tricyclic antidepressant; e.g. amitriptyline
    - Antihistamine; e.g. hydroxyzine
  - Steroid
    - Systemic vs. Ointment
    - With or without antipruritic (scabicide)
      - Crotamiton (Eurax) – ?available
      - Pramoxine

Lichen Simplex Chronicus

Longstanding disease: thickened and leathery, excoriations from scratching.
Treatment considerations

- Improve skin barrier function
- Reduce inflammation
- Stop the “itch-scratch” cycle

Lichen Simplex –
nonspecific measures to improve skin barrier function

- Stop Excessive Hygiene
- Avoid irritants (perfumes, dyes)
- Tepid Soaks
  - Soothing, promotes circulation, cleans
- Skin Protection
  - “Band-Aid” effect (zinc ointment, petroleum, veg. oil)
- Identify and treat co-existing conditions
Reduce inflammation

- Topical / local steroid ointment vs systemic
- I like topical
  - nystatin + triamcinolone 0.1% ointment
    - Anti-yeast
    - May need to RX separately ($$)
  - Pramoxine-hydrocortisone 1-2.5% ointment
    - Anti-pruritic
  - May require more potent corticosteroid for symptom control

Stockdale steroid Rx

- BID x 2 weeks, then
- HS x 2 weeks, then
- M-W-F HS until return
- Return 6-8 weeks
  - triamcinolone 0.1% ointment
  - hydrocortisone butyrate 0.1% ointment
  - hydrocortisone valerate 0.2% ointment
  - fluocinonide 0.05% ointment (rarely Rx)

Systemic steroids (adult)

- Not typically your Medrol dose pack!
- Oral prednisone: 40 mg q AM x 5, then 20 mg q AM x 10
- IM triamcinolone (Kenalog): 80 mg IM in buttock (big muscle) may repeat in 2 months if necessary
- Remember – need to eliminate trigger!
Stop the “itch-scratch” cycle (adult)

- Tricyclic antidepressants
  - amitriptyline 10 mg 2 hrs before bedtime
- Other night-time (sedating)
  - hydroxyzine (Atarax) 25 mg before bed
- Day time
  - Topical pramoxine or crotamiton (scabicide)
  - SSRI (scratching is a form of OCD)

Important LSC Points

- Considerable overlap with contact dermatitis, atopic dermatitis, and lichen simplex chronicus
- May exacerbate other underlying disorders (e.g. – psoriasis, lichen sclerosus)
- Underscores the importance of follow-up and repeat evaluation (may have a mixed dermatosis)

58 year old presents with 3 year history of persistent worsening vulvar itching. Has treated with over-the-counter antifungals and provider RX for presumed yeast without resolution.

What is your diagnosis?
A. Lichen simplex
B. Lichen sclerosus
C. Psoriasis
D. Cancer
Fusion of the labia minora, phimosis of the clitoral hood

Skin commonly appears thinned, whitened, and crinkling “cigarette paper”. Fissures common.

Lichen Sclerosus

- Chronic disease associated with epithelial thinning, distinctive dermal changes (phimosis / involution of labia minor), and inflammation
- Thin, white skin, localized to the labia minor and / or labia major
- Vagina is NOT involved
- Extra-genital lesions in up to 13% of women
- Mean age of onset 50-60 years  
  – Can occur at any age, including pre-puberty

ACOG Practice Bulletin number 93;  2008
Lichen Sclerosus

- CC = Itching / “yeast infection”
- Unknown etiology
  - linked to autoimmune diseases (vitiligo, thyroid)
  - Possible genetic link
- Unknown prevalence (can be asymptomatic)
  - Estimates up to 1 in 30
- 5% association with Vulvar Squamous Cell CA
- Biopsy for diagnosis

Thorsten KA et al. J Midwifery Womens Health 2012

Cancer associated with lichen sclerosis = biopsy

Pediatric Lichen Sclerosus

Confused with = need to consider abuse
Lichen Sclerosus

- Unknown etiology – autoimmune
- Most childhood cases begin before 7 years
  – 15% of affected adults report onset <13 yr
- Pruritus dominant feature
- Characterized by white plaques, fine wrinkling (parchment like changes) and hyperkeratosis (subtle if present)
- Erosions and purpura may lead to misdiagnosis of sexual abuse
- Clinical diagnosis in children, unless uncertain

Lichen Sclerosus - treatment

- Waxing and waning course!! Control pruritus
- Remove Irritants / Comfort Care / Tepid Soaks
- Topical steroid application – OINTMENT
  - Clobetasol (Temovate 0.05%)
  - Mometasone (Elocon 0.1%)
  - Betamethasone valerate (Valisone 0.1%)
  - Triamcinolone (especially Peds)
  - Lowest potency for maintenance!
  – Testosterone propionate - NO
  – Progesterone - NO

57 year old presents with 2 year history of dyspareunia and vulvovaginal burning. Has treated with over-the-counter antifungals and provider RX (local estrogen) for presumed atrophic vaginitis without resolution.

What is your diagnosis?
A. Lichen simplex
B. Lichen planus
C. Atrophy
D. Cancer
Lichen Planus (Erosive)

- Menopausal / peri-menopausal with painful intercourse since “the change”
- Vaginal discharge – may be bloody
- Inflammatory disease of unknown etiology
  - Likely related to cell-mediated immunity
  - Wide range of morphologies (most common and difficult to treat is erosive mucocutaneous)

Lichen Planus (Erosive)

- Estimates ~ 1% of US population
- Of women with oral LP, up to 75% have genital
- Named for cutaneous findings: reticulated, white flat-topped papules and plaques (lichenification)
  - Wickham striae
- Erosive changes with less clearly defined reticulated, white, and violaceous plaques on oral and vulvar skin

ACOG Practice Bulletin Number 93, 2008, Stockdale 2018
Diagnosis
Exam: Wickham's striae, extra-genital LP
Microscopy / Biopsy

Photo thanks to L. Edwards

Lichen Planus
Very Early LP

Courtesy of Hope Haefner, M.D.
Whickham Striae

Erosive Lichen Planus

Lichen Planus Disease Course

- Erosive mucosal LP typically chronic course with waxing and waning
- Progression to vulvovaginal scarring is common
- SCC is recognized risk but rare
  - Estimated to be between 1% and 2%
- Nonresponsive lesions should be biopsied.

Treatment Erosive Lichen Planus

Poorly controlled – numerous medicaments tried

- Topical and systemic corticosteroids
- topical calcineurin inhibitors (tacrolimus /pimecrolimus)
  - oral cyclosporine
  - Hydroxychloroquine (Plaquenil)
  - Oral retinoid
  - Methotrexate
  - Azathioprine (Imuran)
  - Cyclophosphamide

  • ACOG Practice Bulletin number 93, 2008

Treatment of Lichen Planus

- Comfort Care / Skin protectant
- Low to high potency steroid
  - I like hydrocortisone acetate 25 mg suppositories
  - ointment or
  - cream – if using intra-vaginal
- Immune modulator
  - 0.1% tacrolimus (Protopic) ointment - external
  - 0.1% pimecrolimus (Elidel) cream – vaginal

KEY Points: the “Lichens”

<table>
<thead>
<tr>
<th>Lichen Sclerosus</th>
<th>Lichen Planus (erosive)</th>
<th>Lichen Simplex = Eczema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itch or burn</td>
<td>Itch or burn</td>
<td>Itch, Itch, ITCH</td>
</tr>
<tr>
<td>Scars</td>
<td>Scars</td>
<td>NO scar</td>
</tr>
<tr>
<td>*Not in Vagina</td>
<td>In Vagina and Mouth</td>
<td>Not in Vagina</td>
</tr>
</tbody>
</table>
Key points: “Down There”

- Among “top 10” reasons for seeking care
- Underlying psycho-social concerns
  - Cancer, Sex, Monogamy, Normality
- Education and reassurance (aka time and $$$)
  - Need to establish realistic expectations
- May have more than 1 process present
  - Especially with recurrent / chronic complaints
- Biopsy; if in doubt – biopsy – biopsy again!