Learn to Like the Lichens

Lichen Sclerosus
Lichen Simplex Chronicus
Lichen Planus

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Learning Objectives

At the end of this presentation the participant will:

1. Understand the various conditions that cause vulvar pruritus
2. Identify and treat lichen sclerosus, lichen simplex chronicus, and lichen planus
3. Develop a plan for caring for patients with the itch scratch cycle
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Disclosures/Conflicts of Interest

Hope K. Haefner, MD is on an advisory board for Merck Co., Inc.

Multiple medications in vulvovaginal care are “off-label”
What is a lichen?

Website with Written Information

http://obgyn.med.umich.edu/patient-care/womens-health-library/vulvar-diseases

Google University of Michigan Center for Vulvar Diseases
University of Michigan Center for Vulvar Diseases

There are many reasons for seeing a vulvar disease specialist. The University of Michigan Center for Vulvar Diseases, treating vulvar disease as only part of the solution. Our multidisciplinary approach at elects patients receive total care, from cutting-edge treatment options to education and counseling to meet every individual’s needs.

The Center for Vulvar Diseases was created in 1992 to better serve and treat patients with diseases of the external genitalia. Our center is one of only a handful of clinics that specialize in treating these conditions. We focus on the multidisciplinary approach to help patients improve their health.

The team approach allows us to provide a higher level of care and expertise to patients who have already demonstrated a resilient and chronic illness as an unusual vulvar condition.

Many women experience different forms of vulvar pain, including vulvodynia. Vulvodynia is pain on the labia or upon intercourse with a normal appearing vagina. It is a burning, itching sensation. Some patients are unable to accept sexual penetration due to extreme spasms and tenderness. Other conditions associated with vulvar pain include:

- Lichen sclerosis or verruca plana: chronic inflammatory skin disorders
- Vulvar intraepithelial neoplasia: a precancerous condition, often associated with a virus, the human papilloma virus (HPV)
- Hidradenitis suppurativa: a disease of the apocrine and vulvar, with pus filled pockets of fluid
- Bartholin’s cysts: fluid filled cysts at the base of the vestibule

Published papers:
- The Vulvodynia Guideline (PDF)
- Hidradenitis Suppurativa January 2012 (PDF)
- Hidradenitis Suppurativa: A Focus on Surgical Care — Presentation to Recovery (VIDEO)
- Hidradenitis Video
- Centers for Hidradenitis (PDF)
- Tips and Tricks of the Trade (PDF)
- Tips and Tricks (PDF)
- Reactive Reserve for Regularity (PDF)
- Protocol for Total External Hemorrhoidectomy (PDF)

Related Websites:
- National Vulvodynia Association
- International Society for the Study of Vulvovaginal Disease
- American Society for Coproscopy and Cervical Pathology
- Libby Edwards, M.D.
- American College of Obstetrics and Gynecology
- Centers for Disease Control and Prevention Treatment Guidelines
- MHSI Center for Sexual Health

Lectures:
- Conquering Persistent Vulvovaginitis 2011 (PDF)
- Vulvodynia 2011
- Learn to Like the Licensure Lecture 2012 (PDF)
- Learn to Like the Licensure 2012 (written text) (DOC)
- Vulvovaginal Disease Summary 2011 (PDF)
- Vulvar Ulcers Diagnostic Algorithm 2011 (PDF)
- Vulvar Ulcers Diagnostic Algorithm 2011 (DOC)
- Your Diagnosis is June 2012
Lichen Sclerosus

Introduction

• Common chronic vulvar disease
• Inflammation present
• Age range from childhood to elderly (bimodal distribution)
Question

The reason “et atrophicus” was dropped from “lichen sclerosus” was:

1. Histologically, LS often is not an atrophic vulvar condition
2. It was too hard to spell
3. Grossly, it does not appear atrophic
4. We use a US terminology and “et atrophicus” is French

Location of Lichen Sclerosus on the Vulva and Adjacent Areas

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labia</td>
<td>100%</td>
</tr>
<tr>
<td>Clitoris</td>
<td>70.4%</td>
</tr>
<tr>
<td>Perineum</td>
<td>67.9%</td>
</tr>
<tr>
<td>Buttocks</td>
<td>32.3%</td>
</tr>
<tr>
<td>Perianus</td>
<td>32.1%</td>
</tr>
<tr>
<td>Crural area</td>
<td>8.6%</td>
</tr>
<tr>
<td>Urethra</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Clinical Findings
Symptoms

- Often asymptomatic
- Most common symptom is pruritus
  - Can be severe, intolerable
  - Can interfere with sleep
  - Pruritus ani

Other Symptoms

- Burning
- Soreness
- Dysuria
- Dyspareunia
- Apareunia
- Pain with defecation
- Constipation (children)
**Signs**

- Hypopigmentation
- Ivory white papules or plaques
- Cigarette paper appearance
- Cellophane-like sheen to surface
- Hour glass-figure of eight appearance
- Patchy or generalized
  - Vulva, perineum, perianal
  - No vaginal involvement

**Signs**

**Secondary Changes**

- Fusion of labia minora
- Scratching yields open areas causing erosions
- Urinary retention
- Tearing
Whitening Fusion

Clitoral Changes
Loss of Labia Minora

Question

A patient with vulvar whitening that is completely symmetric and has no loss of the labia minora most likely has:

1. Lichen sclerosus
2. Lichen planus
3. Vitiligo
4. Graft versus host disease
Lichen Sclerosus and Vitiligo

Office Procedures

Biopsy (4 mm)
Histopathology

- Thinned epidermis +/- hyperkeratosis
- Band of homogenized collagen
- Lymphocytic infiltrate under the band

Extragenital Involvement

- Neck
- Shoulders
- Axillae
- Under breasts
- Flexor aspects of wrists
- Scalp
- Palms
- Soles
- Acrochordons
Extragenital Involvement

Treatment of Lichen Sclerosus

- Thorough assessment
- Biopsy to verify diagnosis or rule out cancer
- Treat secondary infection (particularly yeast)
- Check thyroid function
Lichen Sclerosus Treatments

General Care Measures
- Bland emollients
- 100% cotton underwear
- Avoid tight, occlusive clothing
- No soaps to the vulva

Treatment of Lichen Sclerosus

- Superpotent steroid ointment (clobetasol propionate 0.05%)
  - Twice daily in a thin, invisible film for 1 month then daily for two months
  - Maintain twice weekly Class 1 VERSUS
  - Decrease to Class IV steroid
Steroid Medications

Clobetasol propionate ointment 0.05%
Sig: apply to vulva bid x 1 month, then qd x 2 months  Disp: 30 gms

Triamcinolone acetonide ointment 0.1%
Sig: apply to vulva qd to bid  Disp: 80 gms

Consider decreasing gradually to triamcinolone acetonide ointment 0.025% qd to bid

Tacrolimus

0.1% ointment
Apply to skin bid to qd
Intralesional Triamcinolone

Injections

Bupivacaine (0.25% or 0.5%) and Triamcinolone acetonide

Draw up Triamcinolone acetonide first (10 mg/cc vs 40 mg/cc) (can use up to 40 mg steroid in single dose per month) HOWEVER NEED TO ASSESS AREA

Combine with Bupivacaine (large area use 0.25%; small area use 0.5%)

Can be repeated monthly
Steroid Medications

- Oral steroids
  - Prednisolone
  - Prednisone
  - Methylprednisolone
- Rarely required
- Significant side effects

Less Common Treatments

Systemic Therapy

- Retinoids
- Potassium para-aminobenzoate (Potoba®)
  - Inhibition of glycosaminoglycan secretion by skin fibroblasts
- Antimalarial agents (chloroquine)
  - Oral or intralesional
Surgical Treatment

• Limited role (high rate of recurrence)
• Surgical division of mucosal adhesions helpful in clitoral phimosis, introital narrowing
DO NOT DO THIS ON LICHEN PLANUS PATIENTS IN CLINIC!

Prepuce Cyst and Lichen Sclerosus

Video
Prepuce Abscess and Lichen Sclerosus

Video

Pediatric Lichen Sclerosus

- Treatment: superpotent to midpotency steroids, with maintenance
- Long term follow-up
- Biopsy not necessary
A 64 y.o. G4P4 was recently diagnosed with lichen sclerosus (no biopsy performed). She was started on clobetasol propionate. She calls complaining of vulvar pain.
Your diagnosis is?

1. Lichen planus
2. Pemphigoid
3. Lichen sclerosus with herpes infection
4. Invasive squamous cell carcinoma
63 year old woman is referred for consultation for vulvar pain, irritation and a non healing lesion. She’s known to have lichen sclerosus, treated with both topical and IM steroids, tacrolimus, estrogen cream and various other medications.

She’s been also diagnosed with GI Crohn’s disease, treated with Imuran.
Part 1
Would you consider a biopsy/ies?

Yes
No
She had biopsies taken several times, the most recent is 5 months prior to her visit to see you. Biopsies from the vestibule, lower vaginal wall and right labium minus revealed spongiosis with hyperkeratosis and hypergranulosis with squamous atypia and underlying chronic inflammation. Several areas appeared reactive and were felt to represent a chronic eczematous process or cutaneous reaction to the underlying Crohn's disease.
Part 2
Would you re-biopsy?

Yes
No

As you examine her, she mentions she can only urinate twice a day. You touch the medial aspect of the vestibule on her right and it is hard and firm.

Would you do a biopsy?
Yes
No
Histopathology reveals:

1. Adenocarcinoma
2. Lichen planus with VIN
3. Squamous cell carcinoma
4. Lichen sclerosus with VIN

Invasive squamous cell carcinoma; depth of invasion is at least 4mm. Carcinoma extends to multiple specimen edges on all three biopsies.
Take home messages:
  Don’t forget to listen to your patients and touch.
  Don’t hesitate to re-biopsy if the results are not consistent with the whole picture.
A 45 y.o. G2P1 presents with complaints of vulvar pruritus. It awakens her at night. A yeast culture was negative. She has been intermittently treated without success with Class 1 topical steroids for over a year.
Your Diagnosis Is?

1. Vulvar intraepithelial neoplasia
2. Herpes
3. Lichen simplex chronicus
4. Lichen sclerosus

These Statements are True about LSC except:

1. It is often secondarily infected
2. It is associated with HIV
3. It commonly reoccurs
4. It is associated with atopy, psoriasis, and contact dermatitis
For Severe Itch-Scratch Cycle

Oral steroids (short term)
Cefadroxil 500 mg po bid x 7 days
Amitriptyline for a week or 2 (25 mg, increase to 50 mg if needed) vs.
Atarax (25 to 50 mg po qd to qid prn)
White cotton gloves

Subcutaneous Steroid Injections

Intramuscular Steroid Injections

- Triamcinolone acetonide intramuscular
- 1 mg/kg up to 80 mg IM
- This can be repeated monthly up to 3 total doses to get a severe condition under control

Lichen Planus
Lichen Planus

- Autoimmune
- Histology and morphology resemble other hyperimmune conditions (GVH, lichenoid drug eruption)
- More difficult to treat than LS; may respond to immunosuppressive therapy

Lichen Planus

- On keratinized skin, pruritic papule
- Vulva, vagina and mouth-often erosive disease
Lichen Planus

• Symptoms
  – Pruritus
  – Irritation
  – Rawness
  – Burning
  – Dyspareunia
  – Apareunia

Lichen Planus

• Signs
  – Non-erosive (often extremities)
  – Erosive
    • Changes on mouth and vulva and vagina
Non-erosive LP
Erosive Lichen Planus
Question

Erosive lichen planus can occur in the
1. Ear
2. Esophagus
3. Mouth
4. All of the above
Lichen Planus

• Diagnosis
  – Biopsy when indicated; often nonspecific
  – Biopsy white epithelium; otherwise the edge of an erosion
  – Consider immunofluorescent study
Lichen Planus

• Treatment
  – Intravaginal dilator
  – Topical corticosteroids
    • Hydrocortisone acetate suppositories 25 to 50 mg per vagina qhs
    or
    • Clobetasol 0.05% ointment inserted per vagina
      Taper

**Tacrolimus**

0.1% ointment
Apply bid to skin to qd
Lichen Planus
Other treatments

- Anti-inflammatory antibiotics
- Misoprostol
- Hydroxychloroquine (Plaquenil)
- Retinoids
- Cyclosporine

- Cyclophosphamide
- Azathioprine
- Etanercept (Enbrel)
- Mycophenolate mofetil (CellCept)
- Methotrexate
Lichen Sclerosus and Lichen Planus
? Overlap
Lichen Sclerosus
Lichen Planus and Vulvar Pain

- Tricyclic antidepressants
- Anticonvulsants
- Physical Therapy
- Sexual counseling

Lichen Sclerosus
Lichen Planus

Topical estrogen cream useful in menopausal women
### Patient Education Needs

Adequate lubrication  
Vulvar self examination  
Vaginal dilation for LP patients (and some LS patients)

### Patient/Provider Education Needs

Additional Information  
[http://www.lichen sclerosus.org](http://www.lichen sclerosus.org)  
[http://www.niams.nih.gov/hi/topics/lichen/lichen.htm](http://www.niams.nih.gov/hi/topics/lichen/lichen.htm)  
[http://emedicine.com/derm/topic234.htm#section~workup](http://emedicine.com/derm/topic234.htm#section~workup)