Keeping Up-to-Date on Vulvodynia

Treatment Options

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Disclosures/Conflicts of Interest

Hope Haefner, MD has
– Nothing to disclose
– No conflicts of interest
Cost Estimate

- US national costs associated with vulvodynia range from 31–72 billion dollars annually


The Ideal Vulva Clinic (in no particular order)

<table>
<thead>
<tr>
<th>Gynecologist</th>
<th>Dietician</th>
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<tbody>
<tr>
<td>Dermatologist</td>
<td>Integrative physician</td>
</tr>
<tr>
<td>Urologist</td>
<td>Massage therapist</td>
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<tr>
<td>Neurologist</td>
<td>Allergist</td>
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<tr>
<td>PM and R</td>
<td>Family medicine</td>
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<tr>
<td>Chiropractor</td>
<td>Pediatric gynecologist</td>
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<tr>
<td>Acupuncturist</td>
<td>Pathologist</td>
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<tr>
<td>Psychiatrist</td>
<td>Psychologist</td>
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<tr>
<td>Sex counselor</td>
<td>Plastic surgeon (nerve entrapment)</td>
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<td></td>
<td>Case manager</td>
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Evaluating Vulvodynia Patients
A Team Approach

- Genetics
- Hormonal
- Inflammation
- Musculo-skeletal
- Psychosocial
- Structural Defects
- Neuro: Central and Peripheral

Factors associated with Vulvodynia
Psychosocial

SEXUALITY AND PAIN

Physical examination

Outaneous or mucosal surface disease present?

Yes

Yeast culture

Treat abnormal visible condition present (infections, dermatoses, premenstrual or malignant conditions)

No

Cotton wash tent

Tenderness, no area of vulva touched described as area of burning

Tender, or patient describes area touched as area of burning

Alternative diagnosis (rounded blister that vestibulitis is present)

Yeast culture

Positive

Antibiotic therapy

Adequate relief

No additional treatment, stop treatment when indicated

Treat additional pain and pain generalized

Surgery (vestibulectomy)

High-dose and multiple medications for neuropathic pain; consider referral to pain specialist, consider neurostimulation

Treatment options:
1. Vaginal care measures
2. Topical medications
3. Oral medications
4. Injections
5. Biofeedback/physical therapy
6. Dietary modifications
7. Cognitive behavioral therapy
8. Sexual counseling
Vulvar Care Measures

No soap on the vulva

Shower heads for rinsing and…
Fabric.com

Solid Flannel White (Bolt, 15 Yard)

$41.98

1

$41.98
Item # 0607748

$41.98
Shipping & Handling $4.99
Tax Collected $2.82
Total $49.79

Cool Gel Packs
Vaginal Lubricants

Replens
Astroglide
KY Liquid
Probe
Slippery stuff
Jo Premium
... etc.
### Vulvodynia-Compounded Therapies

<table>
<thead>
<tr>
<th>Mode of Action</th>
<th>Drug or Drug Class</th>
</tr>
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<tbody>
<tr>
<td>NMDA Ca channel Antagonist</td>
<td>Ketamine, Amantadine, Dextromethorphan, Orphenadrine, Haloperidol, gabapentin</td>
</tr>
<tr>
<td>synthetic Mu opioid agonist</td>
<td>Loperamide</td>
</tr>
<tr>
<td>AMPA (Na+ Channel)</td>
<td>Gabapentin, Carbamazepine, Valproic Acid, Phenytoin</td>
</tr>
<tr>
<td>Alpha 2- Agonist (block norepinephrine release from sympathetic nerve endings) potentiate the effects of anesthetics and opiates.</td>
<td>Clonidine, Pregabalin</td>
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<tr>
<td>Norepinephrine reuptake inhibitors</td>
<td>Tricyclic antidepressants: amitriptyline,</td>
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<tr>
<td>Alpha 1 Antagonists (These receptor sites are primarily located in postsynaptic effector sites)</td>
<td>Prazosin, phentolamine</td>
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<tr>
<td>GABA&lt;sub&gt;B&lt;/sub&gt; agonists (possessing presynaptic depressant action at NMDA)</td>
<td>Baclofen</td>
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<tr>
<td>Non-NMDA Ca channel Blocker</td>
<td>Nifedipine</td>
</tr>
<tr>
<td>NSAID's</td>
<td>Diclofenac, Ketoprofen, Piroxicam etc.</td>
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</table>

### Vulvodynia-Compounded Therapies for:

#### Pain
- Amitriptyline 2%/Baclofen 2%- apply 1/2ml once to three times daily.
- Gabapentin 5-10%
- Ketamine 5-10% (excellent for hyperalgesia and allodynia)
- Doxepin 2-5%
- Loperamide 0.5-5%
- Carbamazepine 2-5%
- Phenytoin 2-5%

#### Muscle Spasm
- Diazepam Suppository- start at 5mg per vagina qhs, may increase to 20mg qhs.
- Belladonna 15mg/ Ketoprofen 0.1%/ lidocaine 2%/ Tetracaine 0.5% in topical pluronic gel
Topical Anesthetics

- 5% Lidocaine (Xylocaine®) ointment safe, effective short-term symptom relief for vestibulodynia (pre-intercourse), LMX 4% cream
  - Benzocaine (Vagisil®) not recommended; it is a sensitizing agent, causing rebound vasodilation and pain
- Doxepin (Zonalon®)
- Topical amitriptyline 2% with baclofen 2% in WWB (water washable base)— squirt ½ cc from syringe onto finger and apply to affected area WWB. Apply qhs with increase not to exceed tid
- Topical ketamine 2%, topical gabapentin 6%, topical baclofen 2% in WWB. Apply qhs with increase not to exceed tid

Vulvodynia-Compounded Therapies (Hormone)

- May 30, 2018 FDA approved Imvexxy (bioidentical 17 beta estradiol estrogen vaginal insert) for treatment of moderate to severe dyspareunia
- November 17, 2016 FDA approved Intrarosa (Prasterone /DHEA) for treatment of dysparuenia
- February 26, 2013 FDA approved Osphena (ospemifene) (SERM)
- Estriol 0.25mg/gm use 1-2gm vaginally qd x 7d then 2-3 times/week
- Estradiol 0.1mg/gm+progesterone 10mg/gm (same as above)
- Testosterone 0.25mg-5mg/gm
Oral Medications
Tricyclic Antidepressants

- Useful for neuropathic pain syndromes such as postherpetic neuralgia and vulvar dysesthesia
- Doses for pain management less than for depression
  - Tricyclics
  - SSRI’s
  - SSNRI’s (venlafaxine, duloxetine)

Tricyclic Antidepressants

- Amitriptyline or desipramine
  - Advise regarding rationale
  - Start at low dose two hours before bedtime and increase up to 150, until comfortable, or intolerable side effects
  - One drink of ETOH per day
  - Advise slow benefit
START LOW & GO SLOW

Advise regarding rationale

Start at 5 mg 2 hours before bedtime (1/2 of a 10 mg tablet)
  Increase by 5–10 mgs every 3–7 days as tolerated up to 150 mg, 2 hours before bedtime

? Baseline EKG if using in the elderly

Make sure no drug interactions

Discuss side effects before starting Rx

One drink of ETOH per day

Tricyclic Medications

• Adverse effects
  – Drowsy (amitrip > desip) or
  – Jittery (desip > amitrip), tachycardia
  – Dry mouth, eyes
  – Increased appetite
  – Constipation
Desipramine (Norpramin®)

- Least sedating of the tricyclics
  - Can switch from amitriptyline/nortriptyline to desipramine if fatigue is severe
- Taken in AM

Venlafaxine ER (Effexor ER®)

- Start at 37.5 mg ER, increase by 37.5 weekly up to 225 mg daily (used for diabetic neuropathy)
- Can take up to 4-6 weeks to see improvement
- 2 week taper when discontinuing medication
Duloxetine (Cymbalta®)

- SNRI
- Comes in 20, 30 and 60 mg capsules
- Start @ 20 mg; slowly increase up to 60 mg, maximum dose is 60 mg po bid
- If the patient is on an SSRI it needs to be stopped before starting duloxetine.

Anticonvulsants and Pain Control

The role of anticonvulsant drugs in the treatment of neuropathic pain is evolving and has been clearly demonstrated

- Gabapentin 100 mg, 300 mg start dose
- Pregabalin 25 mg start dose
- Topiramate, Tiagabene, Lamotrigine, Carbamezepine
Gabapentin

• 64% of 152 generalized vulvodynia patients improved by 80% in a retrospective chart review


Con

Vulvodynia: Assessment and Treatment

We recommend waiting for more empirical evidence before recommending alternative treatment options, anti-inflammatory agents, hormonal agents, and anticonvulsant medications.
Con

Effect of gabapentin on sexual function in vulvodynia: a randomized, placebo-controlled trial
Gloria A Bachmann, Candace S Brown, Nancy A Phillips, Leslie A Rawlinson, Xinhua Yu, Ronald Wood, David C Foster
American Journal of Obstetrics and Gynecology 2018 October 23

Conclusion
• Gabapentin improved sexual function in this group of women with provoked vulvodynia, although overall sexual function remained lower than women without the disorder.

Pro

Pregabalin (Lyrica®)

- Related to gabapentin
- May have insurance coverage issues
- Bid or tid dosing
- Start at 25 or 50 mg and slowly increase
- Maintain at 100-150 mg tid
- Maximum dosing 600 mg/day

Pregabalin

- Retrospective chart review of 28 women on pregabalin for vulvodynia.
  - 12 reported improvement averaging 62%
  - 10 discontinued due to AEs
  - 4 had no improvement
  - 2 with vestibulodynia had not tested their pain

Aranda J, Edwards L: presented at the 2007 ISSVD World Congress
Abstract

Results: The median duration of symptoms was 24 months and median age 62 years (range 36–89). Most of the patients reported a burning sensation, often worsened by sitting, urinating or having intercourse. Treatment with either amitriptyline, gabapentin or pregabalin produced long lasting pain relief in 60% and temporary pain relief in 10%, while treatment was not successful in 30% of the patients. Around 30% of the patients had to stop their medication due to side effects.

In 44 of the 241 (18%) women signs of vulvar dermatoses were present that could not explain the symptoms. These women experienced the same therapeutic efficacy as those without any visible abnormalities (chi-square goodness of fit p = 0.49).

Conclusions: Amitriptyline, gabapentin and pregabalin produced long lasting pain relief in most of the women with GUV. The 2015 International Society for the Study of Vulvovaginal Disease nomenclature acknowledges the concomitant presence of vulvar dermatoses and vulvodynia. This enables treatment of
Other Medications

- Imipramine- Tofranil® (tricyclic)
- Lamotrigine – Lamictal® (anticonvulsant)
- Topiramate – Topamax® (anticonvulsant)
- Carbamazepine – Tegretol ® (anticonvulsant)
- Milnacipram –Savela® (SNRI)
Specific Point Tenderness

- Bupivacaine / triamcinolone acetonide injections
  - Bupivacaine (0.25% or 0.5%) and triamcinolone acetonide (Kenalog®)
  - Draw up triamcinolone acetonide (Kenalog®) first (40 mg/cc) (can use up to 40 mg steroid in single dose per month). CAUTION ON PERINEUM AND SMALL AREAS. Combine with Bupivacaine (large area use 0.25%; small area use 0.5%) Inject into specific area or use as a pudendal block
  - Can be repeated monthly
  - 50% efficacy

Nerve Blocks

- Pudendal
- Genitofemoral
- Ilioinguinal
- Ganglion impar
**Pudendal Nerve Blocks**

Originates from S2, S3, and S4 foramina

**Genitofemoral and Ilioinguinal Nerve Blocks**
Genitofemoral and Ilioinguinal Nerve Blocks

Ganglion Impar Block
Treatments for Vaginismus

Counseling

Topical lidocaine

Topical baclofen

Physical therapy

Dilators

Hypnosis
Surgical Treatment
Chemodenervation Bulbocavernosus
Botox


19 pts received botox into bulbospongiosis muscle 3 times

4 telephone questionnaires at time of treatment, 3 months, 24 months after:
Medical, VAS pain, Female Sexual Function Index, Dermatology Life Quality Index

VAS: 37% cured by 24 months
VAS, FSFI, DLQI all significantly improved at 24 months
95% of respondents sexually active at 24 months

Neuromodulation

- Peripheral subcutaneous stimulation
- Sacral nerve stimulator
  - Modulation of efferent signals to spinal cord
  - Refractory pain in distribution of specific nerve root (S3 or S4)
**Transcranial Electrical Stimulation**


**Randomized Triple Blinded Placebo controlled study**
- N=40, 20 treatment, 20 sham treatment, 10 twenty minute sessions over 14 days
- Vulvodynia confirmed and quantified with algometer.
- 9 validated questionnaires (pain, sexual functioning, anxiety, depression) before and after

**Non-invasive brain stimulation at 2 mA for 30 sec (sham) or 20 minutes (treatment)**

Both groups improved slightly, treatment not superior to placebo or statistically significant

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**Spinal Cord Stimulation**


**Case report, N=3. Technique previously used to treat chronic back and radicular pain**
- 65 yo man with coccydynia, 72 yo man with cauda equina syndrome, 72 yo woman with pudendal neuralgia, all failed many prior med/surg treatments

**Electrodes implanted in vertebral bodies and superior endplates T9-10, 10 kHz delivered**
- Mechanism of action unknown, probably not dorsal horn inhibition pathways

**All patients had transient decrease of pain by 50% at 9-12 months (VAS 7-8 => 3-4)**
- Short term follow up, observational bias, lack of controls
- Delay of onset of analgesia.

- 10 thirty minute treatments over 5 weeks
- McGill Pain Questionnaire and FSFI completed
- Results not statistically significant
• Effectiveness of two different acupuncture strategies in patients with vulvodynia: Study protocol for a pilot pragmatic controlled trial.

• Fan AY; Alemi SF; Zhu YH; Rahimi S; Wei H; Tian H; He D; Gong C; Yang G; He C; Ouyang H.

Diazepam (Valium®) for Pelvic Floor Dysfunction

- Can use vaginal compounded suppository or oral pill
- 5-10 mg, to help with pelvic floor muscle spasm & dyspareunia, can insert 30 minutes prior to sex
- Doesn’t usually cause systemic symptoms

Newer Treatments/Less Commonly Used

- Rejoice trial (Yuvexxy)
- Milnacipran (fibromyalgia)
- Leukotriene receptor antagonist
- Topical nitroglycerin
- Topical capsaicin
- Fibroblast cream (Neogyn)
- Enoxaparin injections
- Passiflora incarnata attenuation (rats)
- KTP and YAG laser rx
- Radiofrequency (pulsed)
- Motor cortex stimulation (central)
The Vulvodynia Guideline


- A guideline for treating vulvodynia is described

www.jlgtd.com
- click on archive
- click on Volume 9 (2005)
- Jan 2005 (pp 1–63)
- Scroll down to The Vulvodynia Guideline
- Click on PDF (350 K)

JLGTD

2013 Vulvodynia Guideline Update

Colleen K. Stockdale, MD
Herschel Lawson, MD

Journal of Lower Genital Tract Disease 2014
Apr;18(2):93–100
Recent Vulvodynia Update

ACOG Persistent Vulvar Pain Committee Opinion
Number 673 September, 2016

Vulvodynia Awareness Campaign
Office of Research on Women’s Health

http://orwh.od.nih.gov/health/vulvodynia.html
General Measures

• Written material/handouts
  – Patient education regarding the nature and prognosis of vulvodynia
  – National Vulvodynia Association
    www.nva.org or 301–299–0775

Online teaching program on chronic vulvar pain
http://learn.nva.org

Oceans of Lotions, Potions, and Notions
No “One Simple Cure”
The Human Dimension