



Vulvar Pain

Common Causes & Treatments

Presented by: Amie Leaverton MD, Assistant Professor OBGYN,
General Ob/Gyn, Program in Vulvar Health

Introduction

- Program in Vulvar Health at OHSU
 - www.ohsu.edu/womens-health/vulvar-health-program
- Multidisciplinary treatment team care model.
- I may use the term “women” in this talk, but all of the concepts apply to patients who identify as trans men, non-binary or queer
- I have no disclosures



Objectives

- Create a differential diagnosis for common causes of vulvar pain with a focus on dyspareunia
- Define, diagnose and begin management for the following:
 1. Generalized vulvodynia
 2. Provoked Localized Vulvodynia or Vestibulodynia (aka “vulvar vestibulitis”)
 3. Levator Myalgia or Vaginismus
 4. Genital Syndrome of Menopause (aka “atrophic vaginitis”)
 5. Desquamative Inflammatory Vaginitis
- Appreciate the impact on sexual expression and libido

No Disclosures

Differential diagnosis for vulvar pain

- Anatomic
 - Mullerian anomalies
 - Pelvic floor myalgia (vaginismus)
 - Endometriosis
- Infectious
 - Candidiasis
 - STDs (GC/CT/HSV)
 - PID
 - UTI
- Hormonal
 - Genitourinary Syndrome of Menopause
 - Lactational hypoestrogenism
 - Hormonal suppression
- Psychosocial and Relationship
- Trauma
 - Perineal injury
 - Surgery
 - Radiation
- Inflammatory
 - Lichen sclerosus or planus
 - Plasma cell vulvitis
 - Granuloma fissuratum
 - Inflammatory vaginitis
- Neuropathic
 - Multiple sclerosis
 - Fibromyalgia
 - Peripheral neuropathy
 - Generalized OR Provoked localized vulvodynia (Vestibulodynia)

ACOG Committee
Opinion Number 673,
Persistent Vulvar Pain

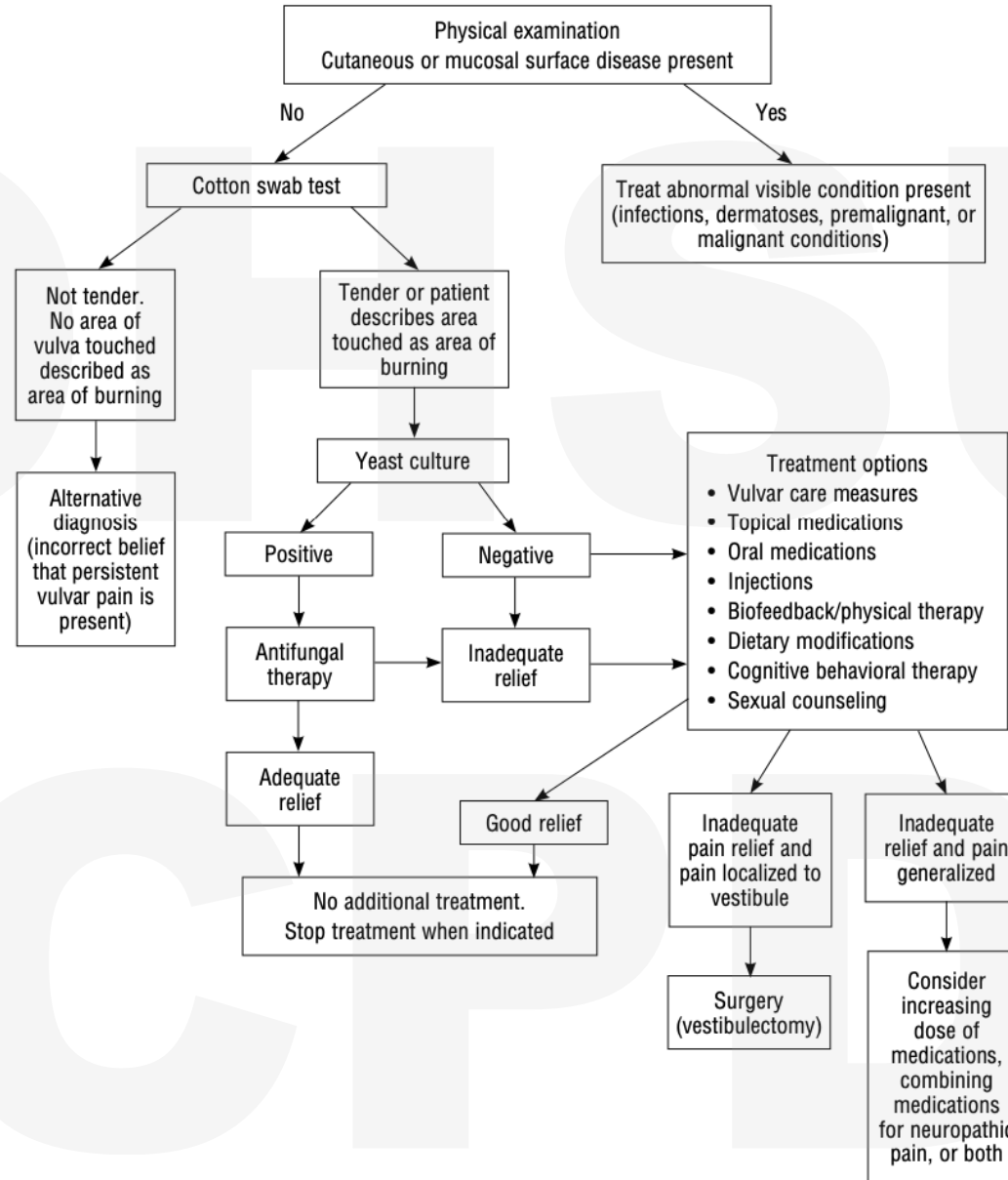


Figure 6. Persistent vulvar pain treatment algorithm. (Reproduced and modified from Haefner HK, Collins ME, Davis GD, Edwards L, Foster DC, Hartmann ED, et al. The vulvodynia guideline. *J Low Genit Tract Dis* 2005;9:40–51 and Stockdale CK, Lawson HW. 2013 vulvodynia guideline update. *J Low Genit Tract Dis* 2014;18:93–100. With permission from the ASCCP.) ↵

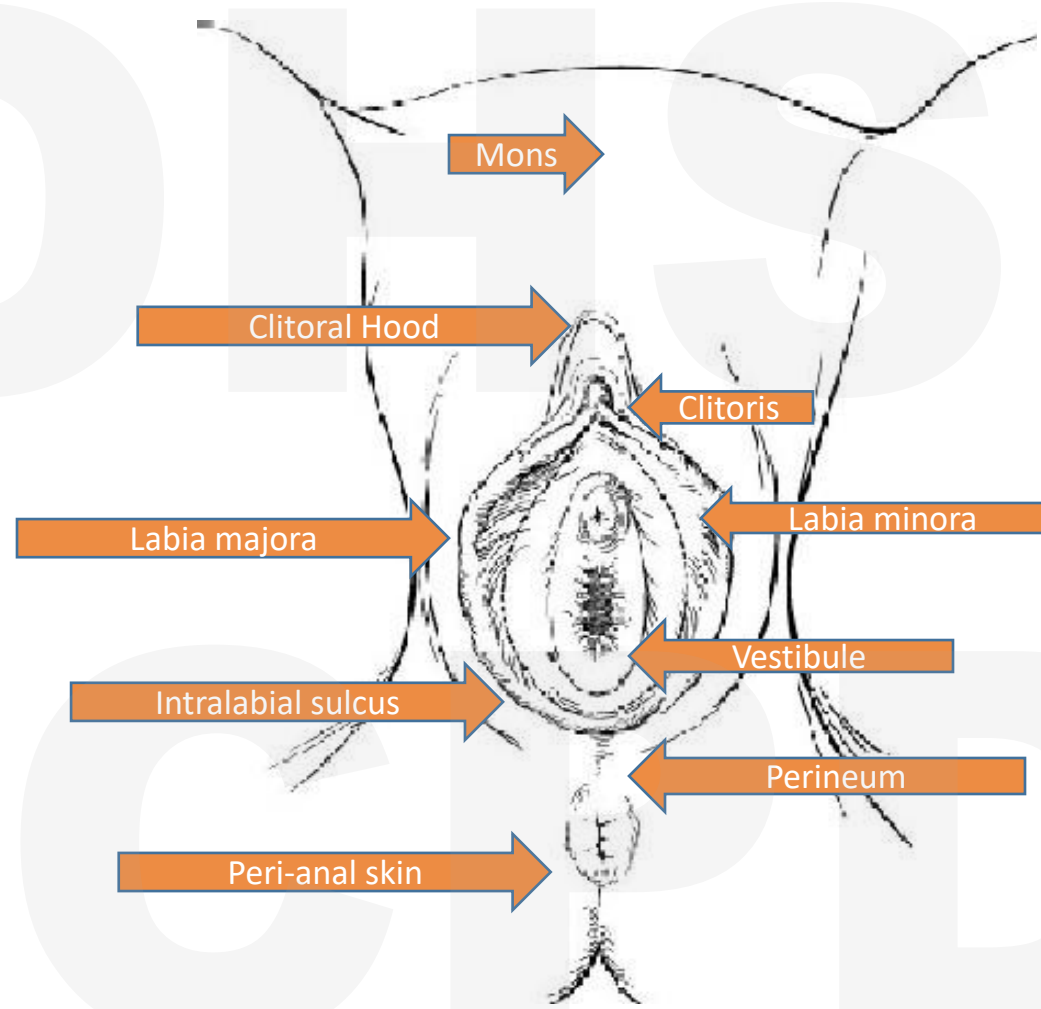
Office Evaluation: History

- Quality: onset, frequency, location, severity, circumstances, description of pain, associated symptoms like bleeding or vaginal discharge. BURNING? SHARP? SHOOTING? CONSTANT? PROVOKED?
- Co-morbidities: fibromyalgia, Interstitial cystitis, IBS, mental illness, Chronic Pelvic Pain (CPP)
- Exposure to contact irritants/allergens: spermicide, lubricants, intra-vaginal products (enhancing gels, toys), cleaning habits of toys
- Hormonal status : Estrogen replete vs depleted (postpartum, menopause, anti-estrogen breast cancer treatment)
- Skin changes: symptoms of itching, ulceration, fissures or skin breakdown
- OTC or other treatments tried: anti-fungal, antibiotics, steroids, lidocaine, hormones

Office Evaluation: Objective Data

- Physical Exam
 - Visual inspection of vulva , perineum, anus & vagina (speculum)
- Microscopy
 - pH immediately (normal=3.5-4.5)
 - NaCl and KOH: fresh prep or suspend in saline
 - APTIMA or BD AFFIRM vaginal swab (POC): appropriate if suspect vaginitis
- Vaginal Culture
 - Fungal culture helpful for identification and speciation of yeast
 - General bacterial culture not helpful
- Vulvar Biopsy
 - Reserved only for SKIN CHANGES, Random biopsy not helpful
 - **Careful not fooled by the blush of erythema in the vestibule (vestibulodynia)
- Pelvic Ultrasound
 - Appropriate when pelvic mass suspected or deep pain elicited on pelvic exam

Anatomy

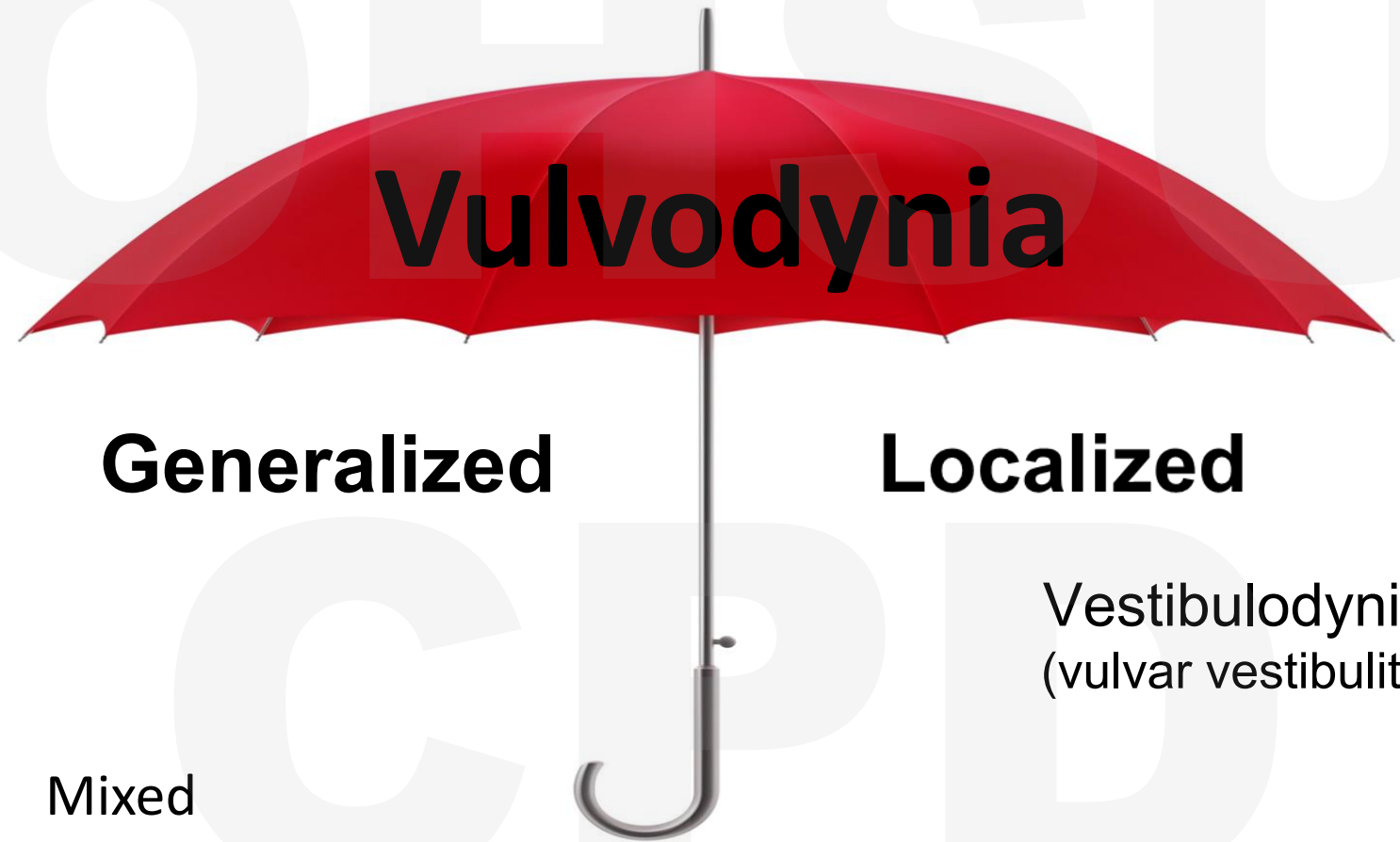


Case Presentation

35 yo G1P1 with vulvar burning pain that is constant. She can't point to a certain area. She has been treated for yeast without improvement. Her exam is normal. Sometimes worse with sitting or at the end of the day but she also wakes up with the pain. She can't identify a certain trigger.



Vulvodynia



Vulvodynia

Generalized

Localized

Mixed

Vestibulodynia:
(vulvar vestibulitis)

Clitorodynia

Diagnosis of Exclusion, 3 months duration

Box 1. 2015 Consensus Terminology and Classification of Persistent Vulvar Pain ↵

A. Vulvar pain caused by a specific disorder*

- Infectious (eg, recurrent candidiasis, herpes)
- Inflammatory (eg, lichen sclerosus, lichen planus, immunobullous disorders)
- Neoplastic (eg, Paget disease, squamous cell carcinoma)
- Neurologic (eg, postherpetic neuralgia, nerve compression or injury, neuroma)
- Trauma (eg, female genital cutting, obstetric)
- Iatrogenic (eg, postoperative, chemotherapy, radiation)
- Hormonal deficiencies (eg, genitourinary syndrome of menopause [vulvovaginal atrophy], lactational amenorrhea)

Classification

B. Vulvodynia—Vulvar pain of at least 3 months' duration, without clear identifiable cause, which may have potential associated factors

The following are the descriptors:

- Localized (eg, vestibulodynia, clitorodynia), generalized, or mixed (localized and generalized)
- Provoked (eg, insertional, contact), spontaneous, or mixed (provoked and spontaneous)
- Onset (primary or secondary)
- Temporal pattern (intermittent, persistent, constant, immediate, delayed)

*Women may have a specific disorder (eg, lichen sclerosus) and vulvodynia

Reprinted from Bornstein J, Goldstein AT, Stockdale CK, Bergeron S, Pukall C, Zolnoun D, et al. 2015 ISSVD, ISSWSH, and IPPS Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia. Consensus Vulvar Pain terminology Committee of the International Society for the Study of Vulvovaginal Disease, the International Society for the Study of Women's Sexual Health, and the International Pelvic Pain Society; *Obstet Gynecol* 2016;127:745–51.

Generalized Unprovoked Vulvodynia

Symptoms

Burning or searing pain

Constant

Usually non-focal

Sensation may ↑ with
activity/manipulation

Lidocaine provides no
relief

Signs

No physical exam finding

Oral Therapy for Generalized Vulvodynia

Name	Dosing	Titration
Tricyclic Antidepressants Amitriptyline Nortriptyline	10-100mg/day (average 50-75mg/day)	Start at 10-25mg and titrate up by 10-25mg every 7 days to max dose. Pain benefit usually 50-150mg
Duloxetine (Cymbalta)	20-60mg/day	Start at 20 mg and titrate up every 7 days to max dose. Pain benefit usually ≥ 60 mg
Gabapentin (Neurontin)	100-3600mg/day in 3 divided doses	Start at 100mg and titrate up by 100mg/day every 5-7 days if well-tolerated. Pain benefit 900-2700mg
Pregabalin (Lyrica)	150-300mg/day in 2 divided doses	Start at 150mg and titrate up by to 300mg after one week if well tolerated.

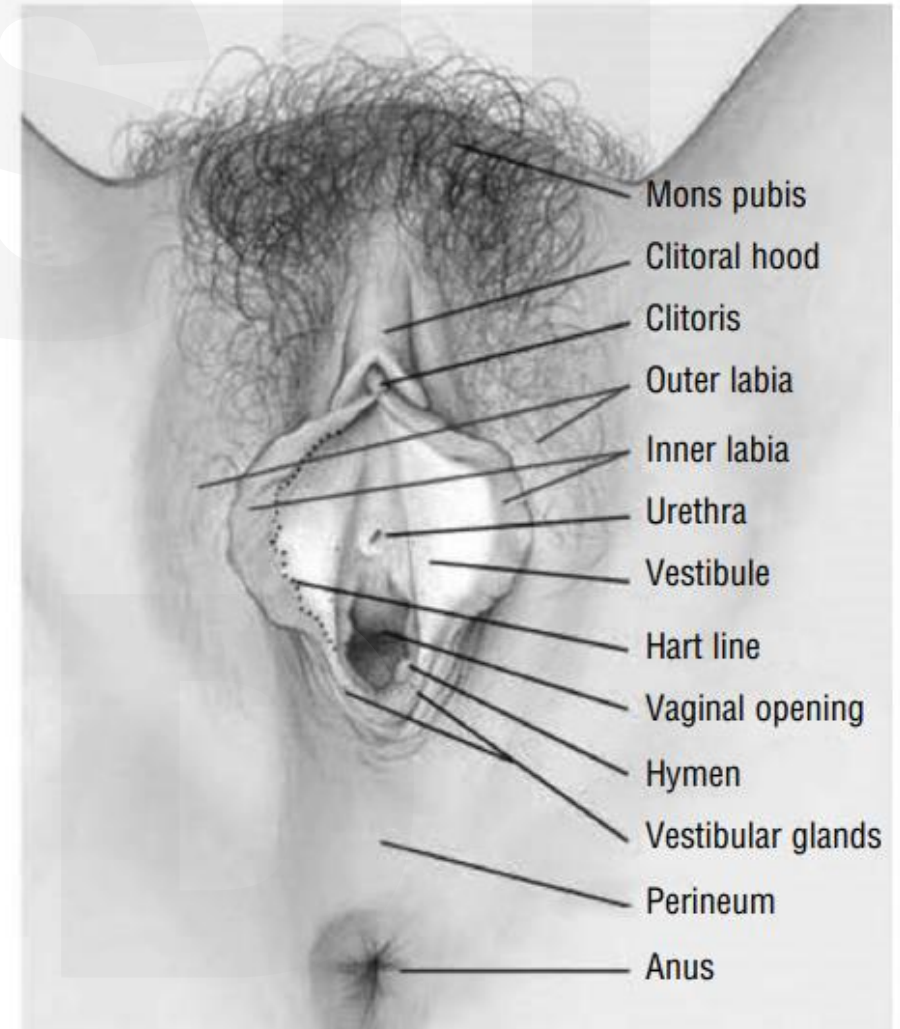
Insertional Dyspareunia

- Definition: Recurrent or persistent genital pain associated with vaginal penetration causing personal distress.
- When specifying insertional we will focus on introital dyspareunia for this lecture.



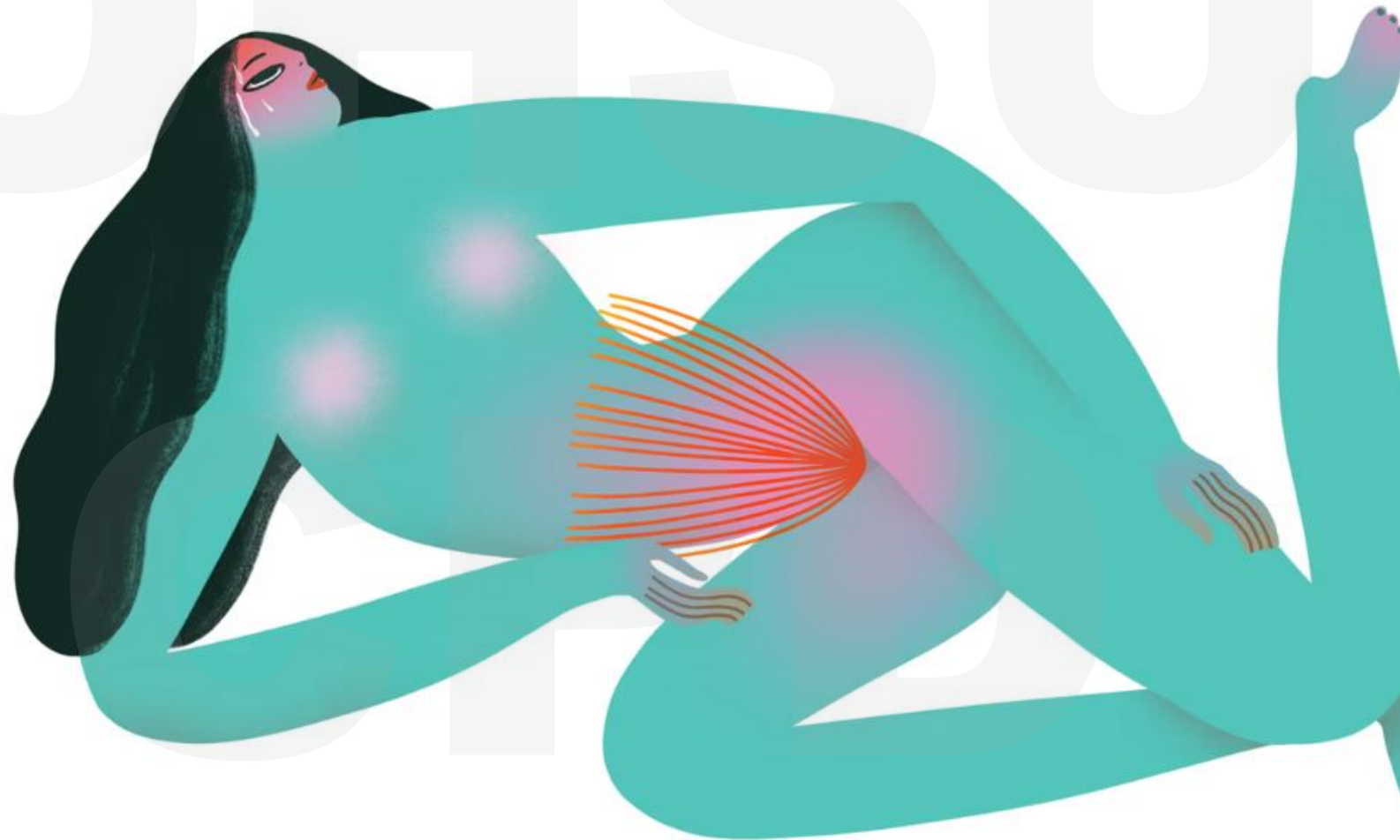
Dyspareunia specific questions

- Introital: “Does it hurt just with penetration?” or “Does it hurt at the time of insertion of a finger, speculum, tampon or penis?”
 - What is the quality of the pain?
“Burning, stinging, sharp, tearing”
- Deep: “Does it hurt deep inside the pelvis, like with thrusting?” or “Does it feel like a pain, ache, stab more inside the vagina as opposed to just at the opening?”



Case Presentation: Vestibulodynia

28yo G0 who presents with dyspareunia. She complains of a raw and burning sensation with penetration



Provoked localized vulvodynia/Vestibulodynia

SYMPTOMS

Entry dyspareunia

(“at the bottom of the opening”)

Difficult tampon use

Painful speculum exam

Pain usually only with touch

SIGNS

-/+Vestibular erythema

+ Qtip test

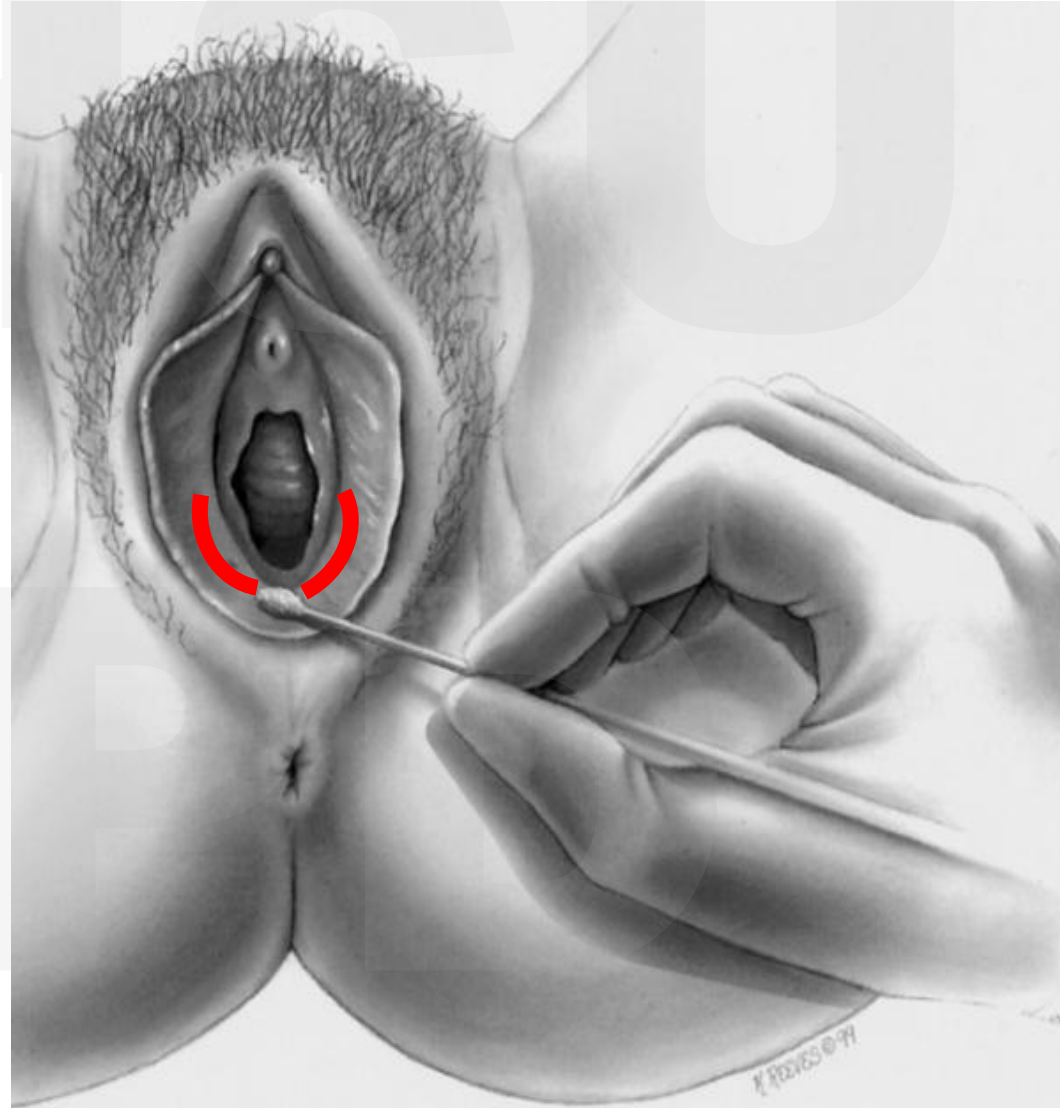
Response to lidocaine

Difficult speculum exam

(tender pelvic floor muscles)

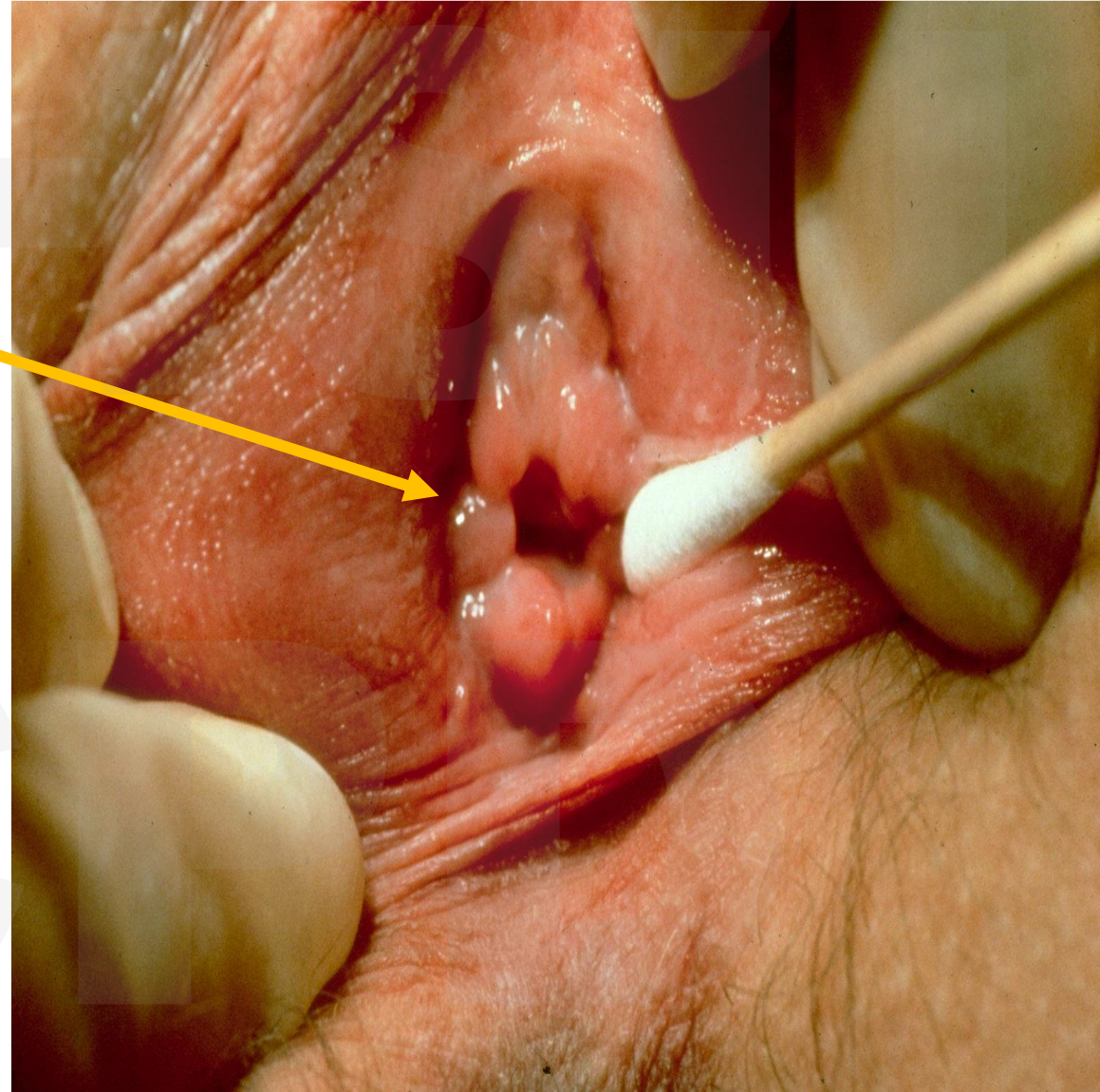
Diagnosis of Vestibulodynia: Friedrich's Triad

- Friedrich's Triad
 - Reported painful penetration
 - Qtip test (+) for tenderness
 - -/+ vestibular erythema

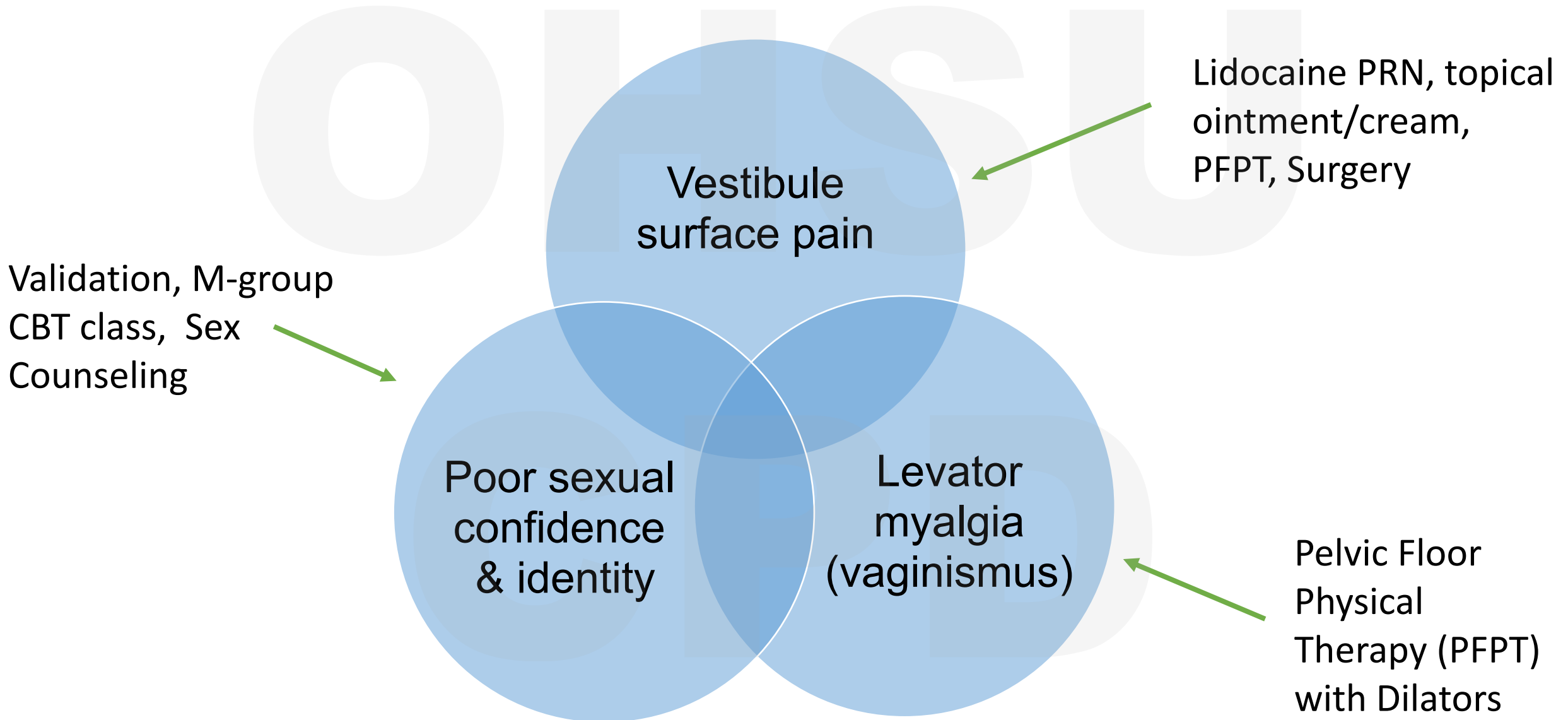


Qtip Test

- First locate the vestibule (just under the hymen)
- Gently **ROLL** moist Qtip. . . . no pressing or poking Qtip
- Give time for patient to answer your verbal rating scale
- Start up at 2 o'clock
- Vestibule clock-face
 - 2, 4, 6, 8, 10 o'clock
 - Numeric verbal pain scale: 0-10
 - Record



The Oregon Approach: Vestibulodynia

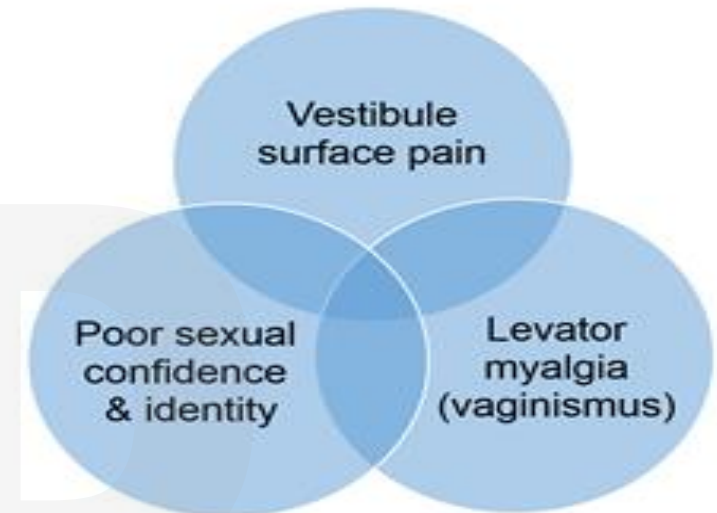


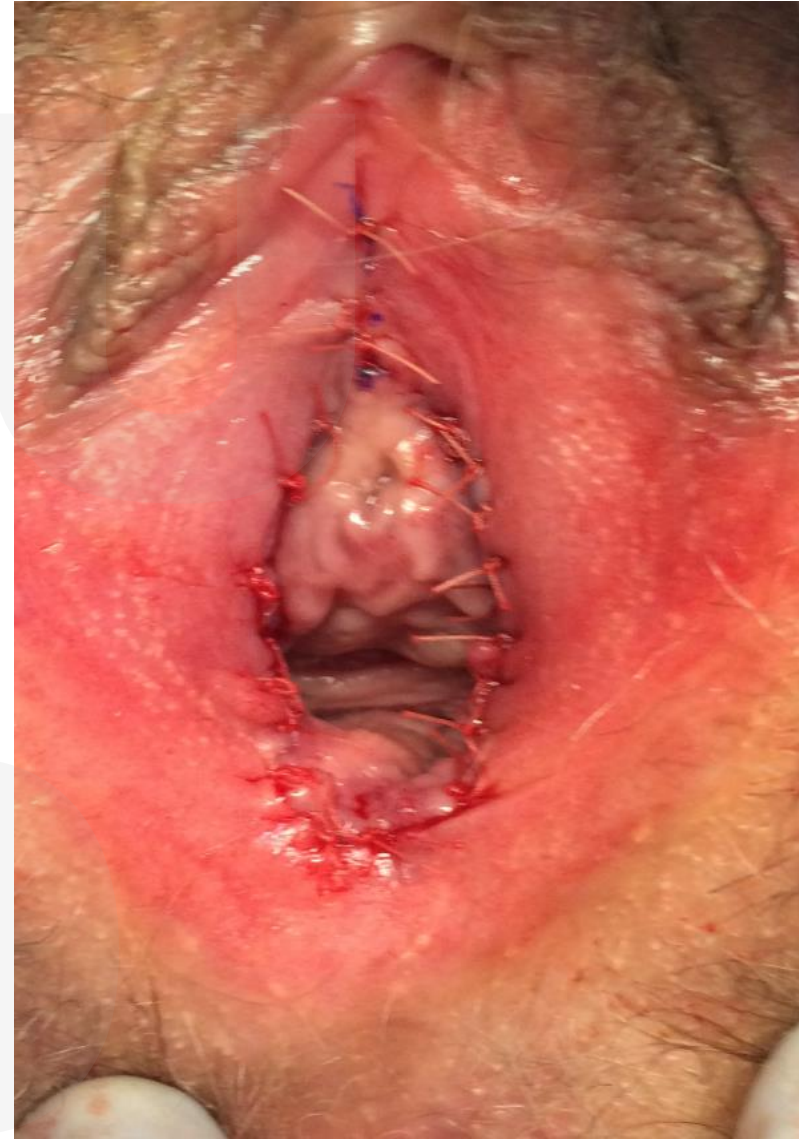
Medical treatment of vestibulodynia

- Topical therapy – no strong evidence to support efficacy
 - 5% lidocaine cream (2 RCTs showed no benefit)
 - Gabapentin 2-6%
 - Amitriptyline 2%/ Baclofen 2%
 - Estrogen 0.01% +/- Testosterone 0.05%
 - Capsaicin 0.025-0.05% (from hot chili peppers)
- Oral Neuromodulators – no evidence to support efficacy
 - Tricyclic Antidepressants (RCT demonstrated no benefit)
 - Gabapentin or pregabalin
 - SNRIs
- Other Options - no strong evidence to support efficacy
 - Botulinum toxin type A injections
 - Nerve blocks (pudendal neuralgia – generally treats a different condition)
 - Acupuncture

Surgical Treatment of Vestibulodynia

- Vestibulectomy – Surgical technique that removes the painful superficial vestibular skin
- Highly effective treatment in reported series
 - 60-100% improvement (average is ~85%)
- No RCTs evaluating effectiveness or techniques
- Works best in combination (PT and psychosexual)
- Optimization of post op healing is important
- Complication rate is low





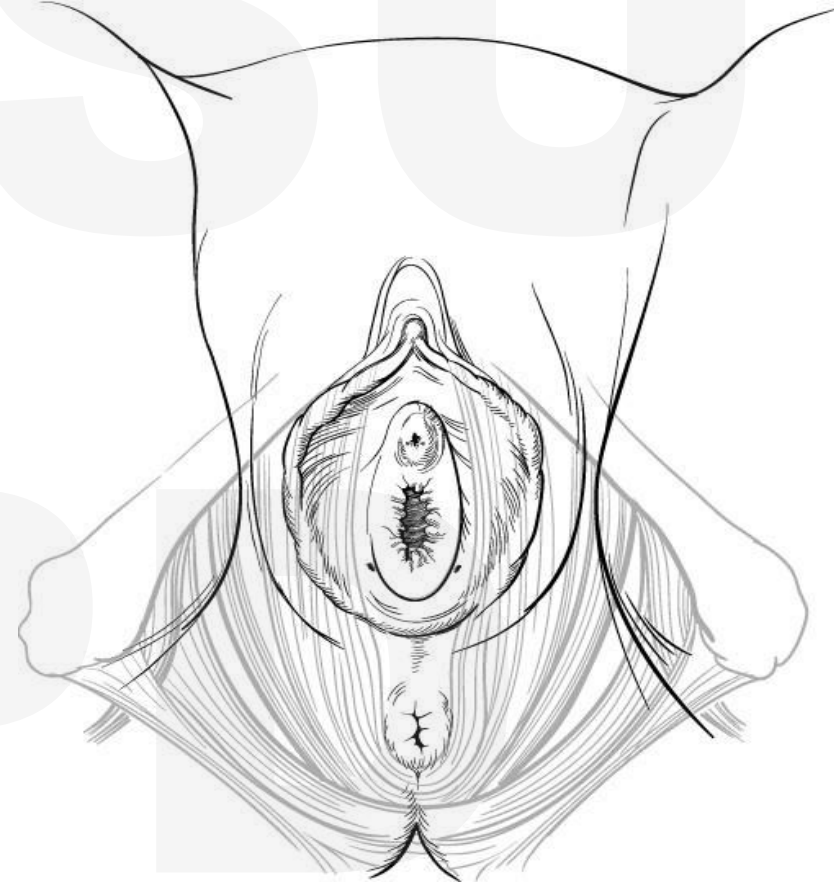
Stenson. Vulvodynia Diagnosis and Management. *Obstet Gynecol Clin N Am* 44 (2017)

What can you do?

- Validate her pain, give her a diagnosis, refer her to Vulvar Program
- RX Pelvic Floor Physical Therapy
- RX topical lidocaine
 - 4% Aqueous lidocaine
 - sig: apply with cotton ball to vestibule for 10 min prior to intercourse
 - 2% lidocaine gel
 - sig: apply amply at vaginal opening for 15 min prior to intercourse, wipe off and then apply lubricant
 - 5% lidocaine ointment
 - sig: dollop (0.5g) to the vestibule nightly for 6 weeks. IF burns then stop.

Case Presentation: Vaginismus or Levator Myalgia

32yo G0 with anxiety,
chronic constipation,
dysmenorrhea and aching
deep pain with intercourse



Definition Levator Myalgia or Vaginismus:

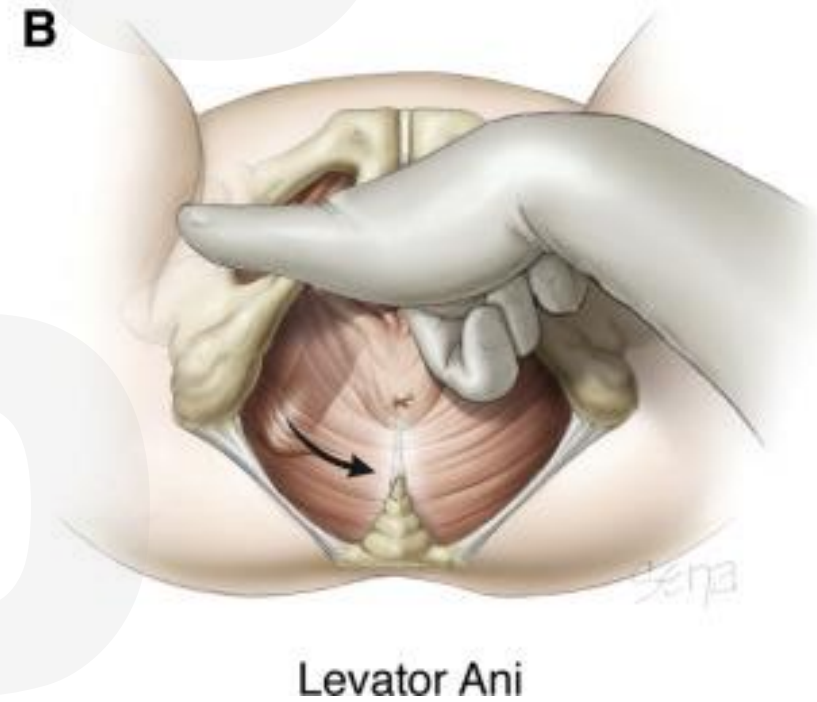
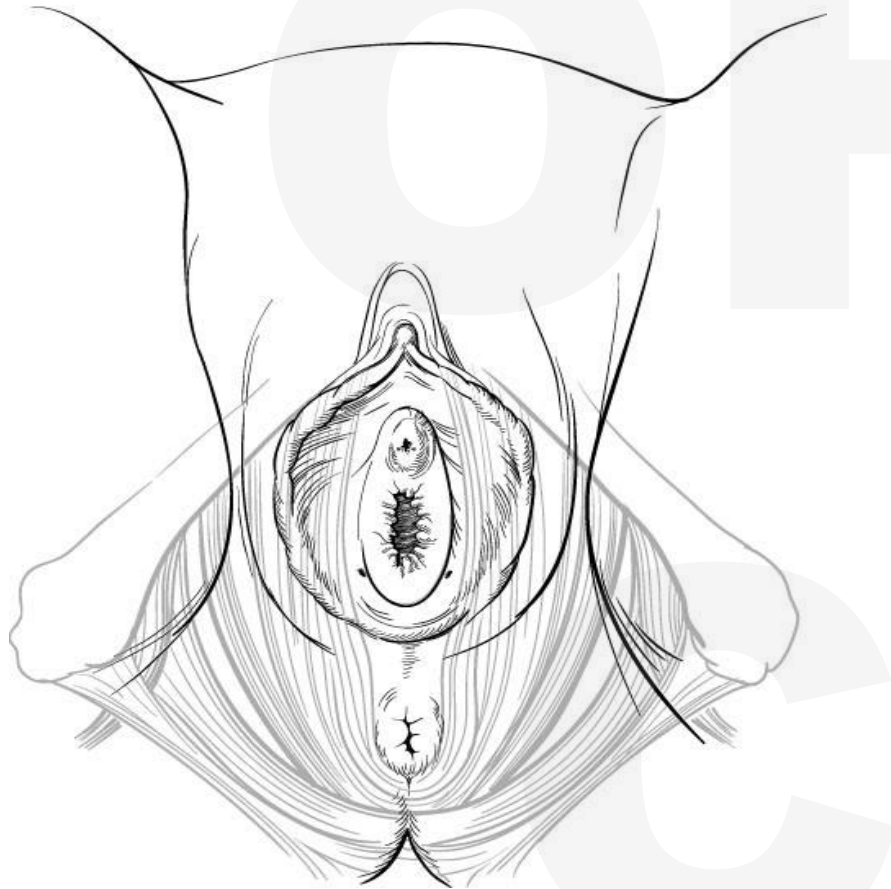
- Hypertonicity of the pelvic floor with pelvic floor motor dysfunction and tenderness (reduced ability to contract and relax the pelvic floor)



Image:
<https://feminisminindia.com/2021/07/21/what-vaginismus-what-can-you-do/>

Physical Exam

Notice **no** hand on the abdomen
Notice different muscle bellies: levator vs obturator
Normal feels like pressure (rectum) but abnormal is tender



Levator Myalgia- Vaginismus

- Pelvic Floor Physical Therapy (PFPM) + Dilator Work
 - Treats levator muscle spasm, hypertonicity and poor contraction/relaxation phase
 - Biofeedback with dilator therapy increases patient awareness (home program), accommodation (of increasingly larger stretch w/o triggering contraction) and control over muscles
 - Good evidence that PFPT improves pain and decreases dyspareunia
 - In VESTIBULODYNIA, evidence supports the PFPT in combination of surgery improves outcome
 - Role for dilators in transitional intercourse (managing the anxiety, voyeurism to pain)

Levator Myalgia-Vaginismus

- Exists independently of vestibulodynia
- Any traumatic experience or condition of chronic pain (to the pelvis) can lead to levator myalgia/vaginismus
- Be suspicious in women with co-morbid chronic constipation, CPP, dysmenorrhea, IBS/IBD or h/o sexual assault WITH dyspareunia

What can you do?

- Validate her pain, give her a diagnosis, refer her to Pelvic Floor PT
- Be inquisitive about your referral
 - Managing incontinence (PFPT) is NOT the same as managing dyspareunia
 - Inquire if your PFPT has worked with dyspareunia/vaginismus patients in the past
- www.vaginismus.com

vaginismus Hope & Her Shop Symptoms Causes Diagnosis Treatment Forum FAQ

Empowered by Hope & Education

Vaginismus is an involuntary contraction of the muscles surrounding the entrance to the vagina, making penetration painful or impossible.

➤ LEARN MORE

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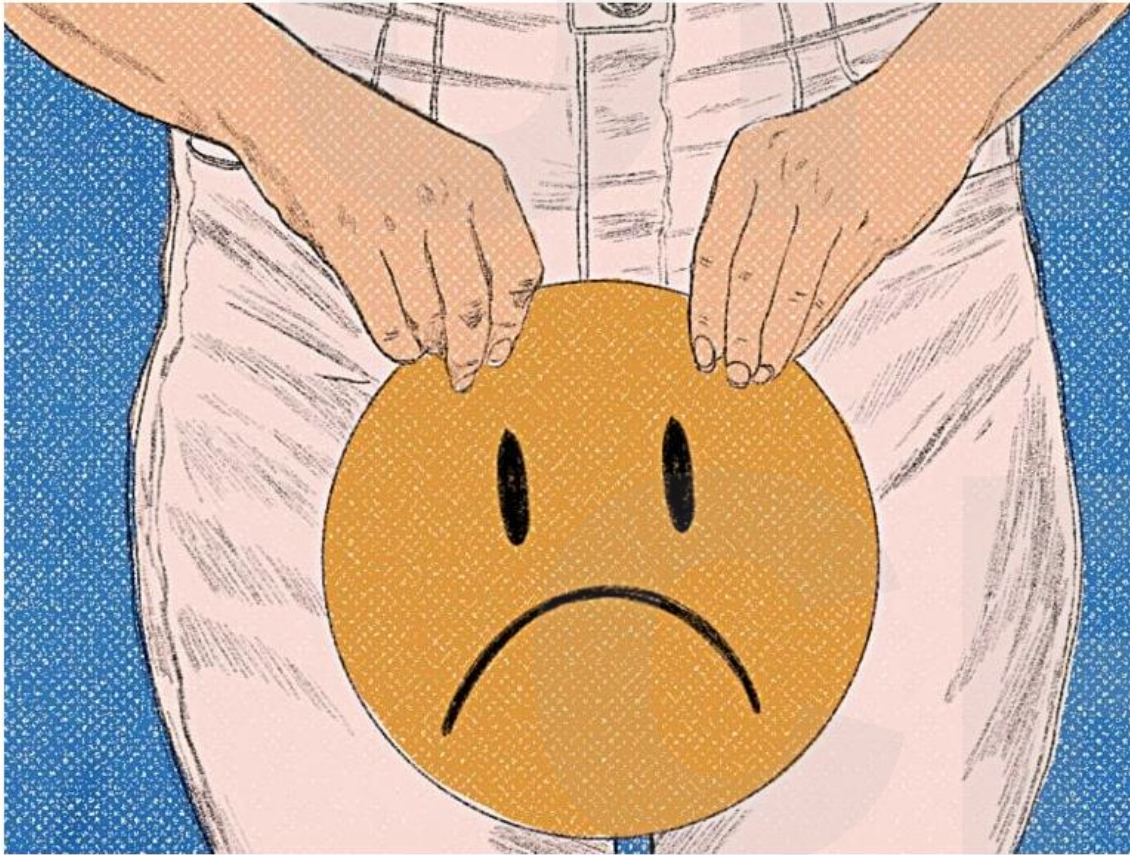
Treatment
Overcome Vaginismus



Case Presentation: GSM or “atrophic vaginitis”

54yo woman presents with increasing pain during intercourse. She reports dryness, poor lubrication and a burning, sand paper sensation.

Genitourinary Syndrome of Menopause (GSM)



(Illustration: Nicole Rifkin)

- Symptoms:
 - dryness & irritation
 - burning
 - fissures
 - poor arousal response
 - poor lubrication
 - Intercourse bleeding
 - dysuria
 - **dyspareunia**
 - urethral burning
 - Urinary frequency
 - Urinary urgency

Genitourinary Syndrome of Menopause (GSM)



- Physical Exam:
 - thin, dry, pale vaginal mucosa
 - loss of labial fat pads
 - scant pubic hair
 - reduced amount of discharge
 - loss of vaginal rugae
 - increased pH (>5.0)
 - loss of lactobacillus +/- wbc on wet mount, scant cellularity

GSM

- Treatment:
 - Vaginal Moisturizers
 - Lubricants
 - Local Hormonal Treatment
 - Topical estrogen
 - Prasterone vaginal insert

Table 1. Nonhormonal and Hormonal Treatment Options		
Formulation	Composition	Dosages
Nonhormonal options		
Lubricants	Water-, silicone-, and polycarbophil-based products	See product labeling
Moisturizers	Hyaluronic acid Polyacrylic acid Polycarbophil-based vaginal moisturizer	5 mg daily for 2 weeks, then 3–5 times per week 3 g daily 2.5 g 3 times/week
Vaginal suppositories	Vitamin E Vitamin D	30–200 international units 1,000 international units
Lidocaine	4% aqueous lidocaine	Fully saturated cotton ball applied to the vulvar vestibule for 3 minutes
Hormonal options		
Vaginal insert	Prasterone*	One 6.5-mg vaginal insert once daily
Vaginal cream	17 β -estradiol [†]	The usual dosage range is 1 to 4 g (marked on the applicator) daily for 1 or 2 weeks, then gradually reduced to one-half initial dosage for a similar period; a maintenance dosage of 1 g, 1 to 3 times a week, may be used after restoration of the vaginal mucosa has been achieved [‡]
Vaginal cream	Conjugated equine estrogen	<ul style="list-style-type: none"> • Evidence-based regimen: twice weekly administration of 0.5 g intravaginally (eg, Monday and Thursday) for treatment of moderate-to-severe dyspareunia • Dosage regimens of 1 g every night for 2 weeks, then twice a week or 0.5 g twice a week are commonly used[§]
Vaginal ring	17 β -estradiol	7.5 micrograms/day for 90 days
Vaginal tablet or insert	Estradiol hemihydrate	<ul style="list-style-type: none"> • 10 micrograms/day for 2 weeks, then 10 micrograms/day 2 times a week • A vaginal insert containing 4 micrograms is available, although not used in included studies
Vaginal cream	Testosterone	<ul style="list-style-type: none"> • 300 micrograms or 150 micrograms applied daily for 28 days • 300 micrograms or 150 micrograms applied daily for 2 weeks, then 3 times a week
<p>*The product label contains the following warning and precaution for those with a current or past history of breast cancer: "Estrogen is a metabolite of prasterone. Use of exogenous estrogen is contraindicated in women with a known or suspected history of breast cancer. [It] has not been studied in women with a history of breast cancer." Additional data have been published on this population since the U.S. Food and Drug Administration approval of this medication.</p> <p>[†]Known, suspected, or history of breast cancer is listed as a contraindication in the product label.</p> <p>[‡]U.S. Food and Drug Administration–approved dosages of conjugated estrogen and estradiol creams may be higher than dosages commonly used in clinical practice.</p> <p>[§]Study protocol: cyclic administration of 0.5 g intravaginally (daily for 21 days then off for 7 days) for treatment of moderate-to-severe dyspareunia, a symptom of vulvar and vaginal atrophy, due to menopause.</p>		

Table: ACOG Clinical Consensus Number 2, December 2021

GSM Treatment: Moisturizer, Lubricants & Estrogen

1. Vaginal Moisturizers

Hyalo Gyn[®]

Replens[®]: lubricating product containing mineral oil, glycerin, purified water and other fillers to produce a moisturizing effect.

- Not intended as sexual lubricant, many use as such
- To maintain effect, need to use 2-3x/week
- \$15 for ~2 oz tube, advertised as 14 count
- Does not affect vaginal epithelium

2. Lubricants

Water : Astroglide[®], Slippery Stuff[®], and Wet[®]

Silicone: EROS[®], PJUR[®], Uber lube[®]

Oil: natural oils like coconut, mineral or olive oil

GSM: Local Estrogen

- Cochrane Review of 4000 PMP women using local estrogen
 - **All delivery methods essentially equal in relieving effects of atrophy whether ring, tablet or cream* - in practice may not be true. Make sure they get the VESTIBULE**
 - **No opposing progestin needed ***
 - **Acceptable in breast cancer patients if not on aromatase inhibitor**
 - Crean-Tate, et al. "Management of genitourinary syndrome of menopause in female cancer patients: A focus on vaginal hormonal therapy". AJOG. February 2020.
 - "Treatment of Urogenital Symptoms in Individuals With a History of Estrogen-dependent Breast Cancer". ACOG Clinical Consensus Number 2, December 2021



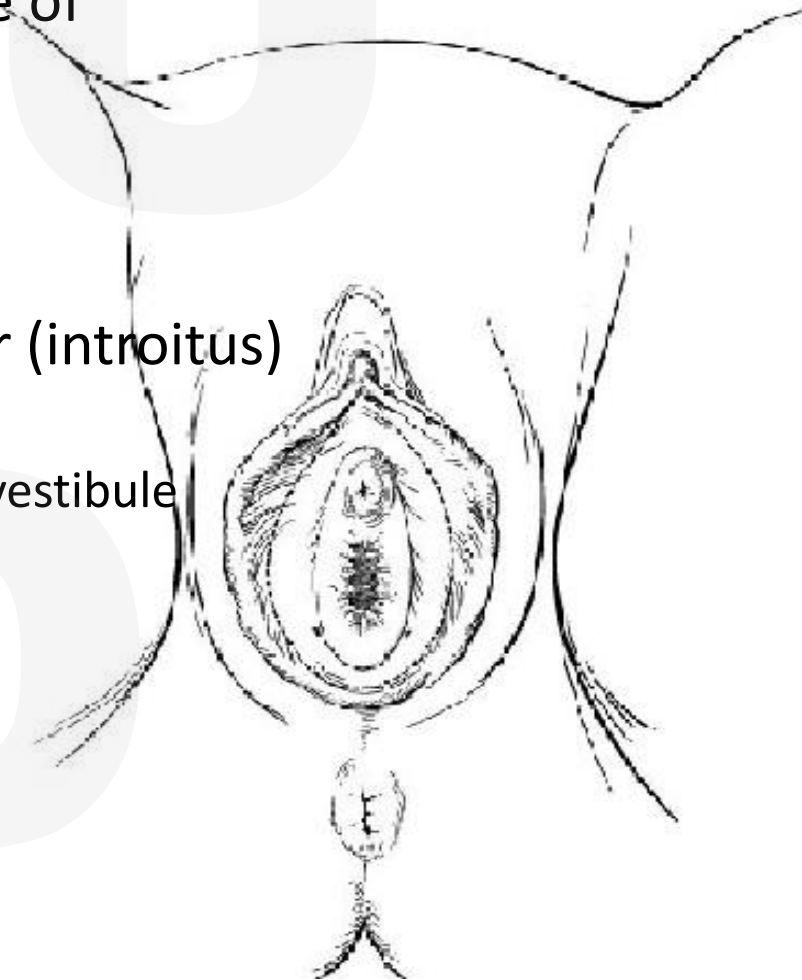
"Treatment of Urogenital Symptoms in Individuals With a History of Estrogen-dependent Breast Cancer". ACOG Clinical Consensus Number 2, December 2021

Genital Syndrome of Menopause: Estrogen RX

Preparation	Dosing	Regimen (by manufacturer)
Estring® *Low Dose	7.5mcg E2/day 90d ring	Ring inserted vaginally and replaced/removed in 90d
Vagifem® *Low Dose	10mcg E2/tablet	1 tab PV QHS x 14d then 2x/week
Premarin® cream *Moderate Dose	0.625mg CEE/g	1g PV QHS x 7-14d then 0.5g cream 2x/week
Estrace® cream *Moderate Dose	100mcg E2/g	1g PV QHS x 7-14d then 1g 1-2x/week

What can you do?

- Discuss arousal phase, lubricants, positioning and potential use of moisturizers
- Realize that local estrogen is gold standard for GSM
- Choose estrogen vehicle (s)
 - Step 1: Consider intravaginal (ring or tablet) **AND** vestibular (introitus) application for local support of vulva
 - Topically: to first knuckle on finger size QHS of estrogen cream at vestibule
 - Step 2: Allow adequate time for effect
 - No data on how long to wait
 - observation 4-6 wks
 - Step 3: Re-examine for effect
 - If related just to estrogen then pain should improve



Case Presentation: Desquamative Inflammatory Vaginitis

62 yo with copious yellow vaginal discharge, burning/pain and dyspareunia. She is using topical estradiol. She keeps getting vaginal pathogen swabs showing bacterial vaginosis. She has been treated with metronidazole multiple times

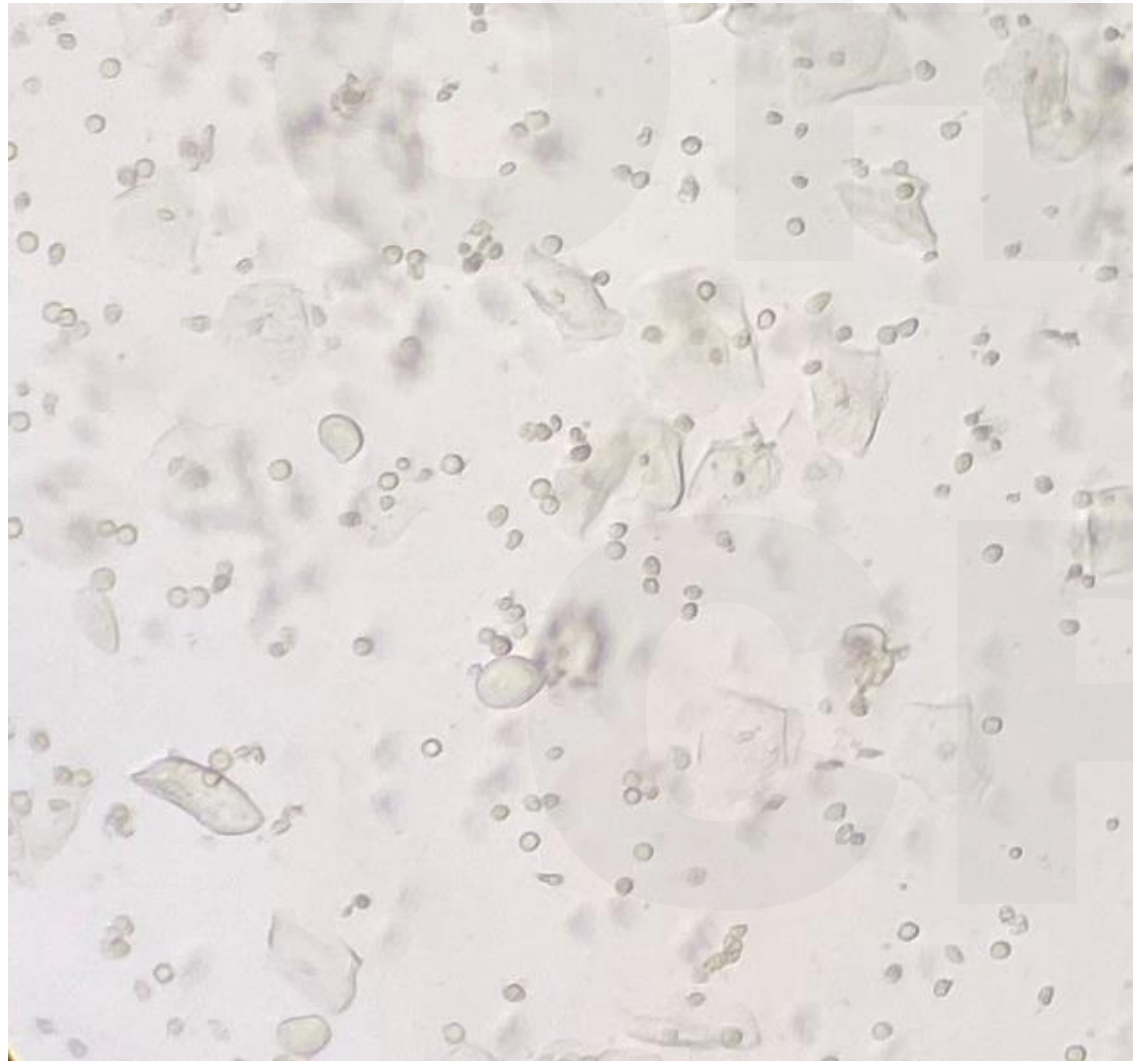


On exam you see
this... What do you
do next?



What do you see?

What do you think the patient has?



pH > 5.5



Desquamative Inflammatory Vaginitis (DIV)

- Symptoms
 - Burning
 - Pain with sex
- Exam
 - Profuse purulent discharge
 - Erythema, petichiae
 - Elevated vaginal pH >4.5
- Microscopy
 - WBCs 3+, parabasal cells

What can you do?

- If they are postmenopausal make sure to treat **ATROPHIC VAGINITIS/GSM** FIRST – they can be confused, then re-evaluate
- Treatment (6 week course daily PV)
 - Clindamycin 2% cream 4gm
 - 10% hydrocortisone cream compound 4 gm
- Outcomes:
 - 1/3 cure
 - 1/3 late recurrence
 - 1/3 immediate recurrence
- May need suppression with 2-3x weekly treatment long term



Psychosexual Distress + Low Libido

- Individual or Couples-Sexual Counseling
 - Center for Couples and Sex Therapy – <https://www.thecenterportland.com/>
 - <https://www.aasect.org/>

The Center

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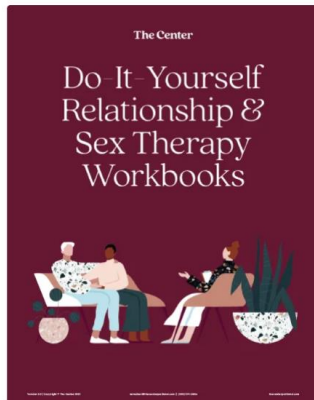
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Need help but not ready for therapy? We've got you! Our free workbooks are full of therapist-approved advice to help you create the loving relationships and positive sexual experiences you deserve.

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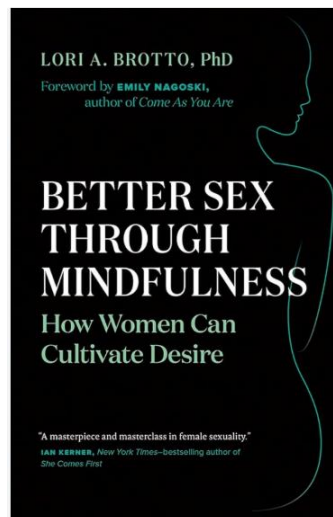
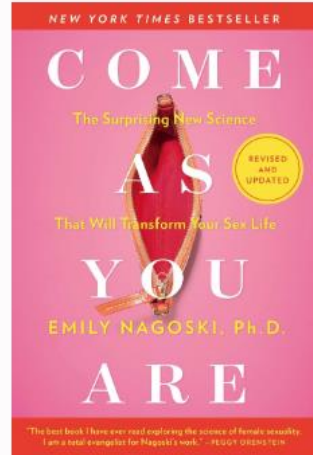
- Sensate Focus

- Come As You Are by Emily Nagoski PhD
 - Good discussion of women's libido and how the concept of "accelerators and brakes" impact our sexuality.

- Mating in Captivity by Esther Perel PhD
 - Great discussion of maintaining desire in a long-term relationship.

- Michele Weiner-Davis' TED talk "The Sex-Starved Marriage" -Excellent discussion of couple dynamics when you are experiencing a sexuality mismatch.

- Better Sex Through Mindfulness: How Women Can Cultivate Desire and The Better Sex Through Mindfulness Workbook by Lori Brotto, PhD.



OHSU



Thank You

CPD



GYNECOLOGY IN PRIMARY CARE: BEYOND THE BASICS

OBJECTIVES

The purpose of this 12-session ECHO series is to increase the capacity of primary care providers and their clinical teams to provide diagnostic workups, therapeutic management, and patient counseling of common gynecologic conditions encountered in the primary care setting. Funded by Oregon State Legislative Funds.

Topics will include:

- Abnormal Uterine Bleeding
- Cervical Cancer Screening and Management of Abnormal Pap Smears
- Sexually Transmitted Infections and Vulvovaginitis
- Endometriosis and Chronic Pelvic Pain
- PCOS and Infertility: Workup and Management

DETAILS

Audience: Participants will include clinicians, nurses, and other healthcare team members

Schedule: 12 sessions. Tuesdays, 12:00 - 1:00 p.m., PT April 7 - June 23, 2026.

Register at: www.oregonechonetwork.org/programs

BENEFITS

- No cost to you or your clinic
- No-cost continuing medical education (CME) credits*
- The opportunity to present your tough cases and receive feedback from a multidisciplinary team of specialists and your peers

*Accreditation: Oregon Health & Science University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.



“Deepening my knowledge and understanding of contraception, risks, benefits and patient centered approach to prescribing. I loved learning all of the pearls from faculty and fellow participants.”

– *Reproductive Health In Primary Care, Winter 2023*

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ECHO FACULTY TEAM

- **Jessica Reid, MD, MCR**, Assistant Professor of Obstetrics and Gynecology, OHSU
- **Amie Leaverton, MD**, Assistant Professor of Obstetrics and Gynecology, OHSU
- **Carrie Pierce, MD**, Assistant Professor of Family Medicine, Sky Lakes Medical Center, OHSU
- **Gina Allison, MD**, Board-certified Gynecologist and Surgeon, Northwest