FEMALE SEXUAL HEALTH

DEFINITIONS- HYPOACTIVE SEXUAL DESIRE DISORDER

- Manifests as any of the following:
- Lack of motivation for sexual activity as manifested by either:
  - Reduced or absent spontaneous desire (thoughts or fantasies)
  - Reduced or absent responsive desire to erotic cues or stimulation or inability to maintain desire or interest through sexual activity
- Loss of desire to initiate or participate in sexual activity including behavioral responses such as avoidance of situations that could lead to sexual activity, that is not secondary to sexual pain disorders
- AND is combined with clinically significant personal distress that includes frustrations, grief, incompetence, loss sadness, sorrow, or worry.

DEFINITIONS: FEMALE GENITAL AROUSAL DISORDER

- Female genital arousal is a physical state arising from an interaction between genital response, CNS activity and information processing of sexual stimuli.
- Female genital arousal disorder (FGAD) is an inability to develop or maintain genital arousal and sub-categorized as related to:
  - Neurovascular injury or dysfunction
  - CNS activity (information processing of sexual stimuli)
- FGAD is a separate and distinct entity an should be classified as such.
- Traditional specifiers (generalized vs. situational) and causing significant intra or interpersonal distress apply.
- Subjective and genital arousal may not match

DEFINITIONS: FEMALE ORGASM DISORDERS

- Female orgasmic disorder (FOD) is characterized by persistent or recurrent, distressing compromise of orgasm, frequency, intensity , timing, and /or pleasure, associated with sexual activity for a minimum of 6 months
- Frequency: reduced or absent (anorgasmia)
- Intensity: reduced intensity (muted)
- Timing: occurs to late (delayed orgasm) or too early (premature orgasm) than desired
- Pleasure: occurs with absent or reduced pleasure (anhedonic orgasm, pleasure dissociative orgasm disorder-PDOD)

DEFINITIONS: POST – ORGASMIC ILLNESS DISORDER (POID)

- Female Orgasmic Illness Syndrome (FOIS): Characterized by peripheral and/or central aversive symptoms that occur prior to, during or following orgasm.
- Central Aversive Symptoms: may include disorientation, confusion, impaired judgment ,decreased verbal memory, anxiety, insomnia, depression, seizures, and/or headache (coital cephalagia)
- Peripheral Aversive Symptoms: diarrhea, constipation, muscle ache, abdominal pain, diaphoresis, chills, hot flashes, fatigue, akathesia and genital pain
- Symptoms may last for minutes, hours or days post orgasm

DEFINITIONS: PERSISTENT GENITAL AROUSAL DISORDER (PGAD)

- Persistent or recurrent, unwanted or intrusive, bothersome or distressing, genital dysesthesia that is unrelated to interest and may be associated with:
  - Symptoms leading to despair, frustrations, emotional lability, catastrophizing thoughts
  - Co- occurrence of OAB and RLS
  - Potential pelvic or pudendal neuropathy
  - Alterations in orgasm(spontaneous, recurrent, aversive, absent, delayed, muted or not associated with pleasure or satisfaction)
  - Limited or no resolution of symptoms, even with orgasm

DEFINTIONS: FEMALE GENITAL-PELVIC PAIN DYSFUNCTION

- Persistent or recurrent difficulties with at least one of the following:
  - Vaginal penetration during intercourse
  - Marked vulvovaginal or pelvic pain during genital contact
  - Marked fear or anxiety about vulvovaginal or pelvic pain in anticipation of, during, or as a result of genital contact
  - Marked hypertonicity or over-activity of pelvic floor muscles with or without genital contact

DSM-V CHANGES

- From DSM-IV to DSM-V:
  - Merged HSDD with FGAD –combined them into Female Sexual Interest and Arousal Disorder (FSAID)
  - FOD – unchanged
  - Dyspareunia- merged into Genito-Pelvic Pain/Penetration Disorder
  - Vaginismus- unchanged
  - Defined by onset
    - Lifelong vs. Acquired
  - Defined by context
    - Generalized vs. Situational
  - Defined by characteristics
    - Distress, persistence (greater than 6 months)
    - Seerity- mild, moderate, severe
    - Subtypes- psychogenic, organic, mixed, unknown etiology

DEFINITIONS

- ISSWSH and the International Consultation of Sexual Medicine Committee on Definitions reached a consensus:
  - Important to characterize the assessment of each disorder while understanding there is overlap
  - Treatment is based on the primary disorder identified by the woman

ISSWSH DEFINITION

- Persistent or recurrent deficiency or absence of sexual fantasies and desire for sexual activity with marked distress or interpersonal difficulty not otherwise accounted for by a general medical or psychiatric condition

ISSWSH DEFINITION

- May include any of the following:
  - Lack of motivation for sexual activity as manifested by either reduced or absent spontaneous desire, sexual thoughts or fantasies or reduced or absent responsive desire to erotic cues and stimulation or inability to maintain desire or interest through sexual activity.

ISSWSH DEFINTION

- May include any of the following:
  - Loss of desire to initiate or participate in sexual activity, including behavioral responses such as avoidance of situations that could lead to sexual activity that is not secondary to sexual pain disorder and is combined with clinically significant personal distress that includes frustration, grief, incompetence, loss, sadness, sorrow or worry.

PREVALENCE OF FEMALE SEXUAL DYSFUNCTION

- PRESIDE STUDY (Prevalence of Female Sexual Problems associated with Distress and Determinants of Treatment Seeking)

Sexual Complaint	Sexual Problem	Sexual Problem +Distress
Desire	38.7%	10.0%
Arousal	26.1%	5.4%
Orgasm	20.5%	4.7%
Any Dysfunction	44.2%	12.0%

DISTRESSING SEXUAL PROBLEMS: AGE STRATIFIED

Age	Desire 2863/20,447	Arousal 1556/28,461	Orgasm 1315/27,854	Any 3456/28403
18-44 yrs.	8.9 %	3.3%	3.4%	10.8%
45-64 yrs.	12.3%	7.5%	5.7%	14.8%
>65 yrs.	7.4%	6.0%	5.8%	8.9%

INCIDENCE OF HSDD: MENOPAUSAL WOMEN

Menopausal Status Age	Surgical 20-49 yrs.	Surgical 50-70 yrs.	Natural 50-70 yrs.
low desire	36%	33%	29%
low desire + distress	72%	44%	33%
total population with HSDD	26%	15%	10%

PRESIDE STUDY

- Low desire is the most common of the three sexual problems among women of all ages (desire, arousal and orgasm)
- When stratified by age, the 45-64 year old women have the most distress associated with sexual complaints
- When looking at HSDD and menopause, both surgical and natural, the highest incidence is among the youngest women undergoing a surgical menopause

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- Only one third of women with distressing sexual problems seek care
- Majority of women sought help from PCP'S (38.5%) and gynecologists (46.7%)
- Over half of the women asked during a routine exam

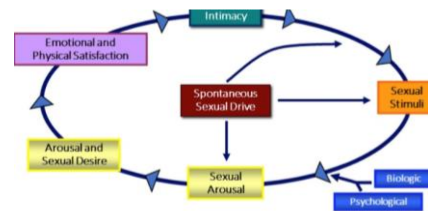
FEMALE SEXUAL RESPONSE CYCLE

- MASTERS AND JOHNSON: Based on physiologic observations. Linear 4 stage model of excitement , plateau, orgasm and resolution
- KAPLAN AND SINGER: Linear 3 phase model of desire, arousal and orgasm

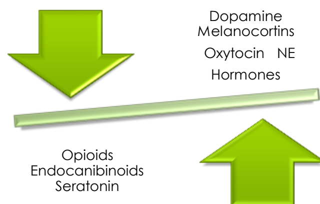
FEMALE SEXUAL RESPONSE CYLCLE

- BASSON:
  - Circular, more complex model that integrates emotional intimacy and sexual satisfaction
  - Linear models not applicable to women
  - Start from position of neutrality
  - Multiple reasons for sex
  - Desire follows objective arousal

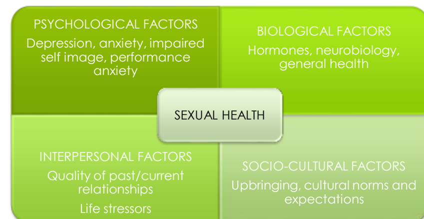
BASSON MODEL OF SEXUAL RESPONSE CYCLE



DUAL CONTROL MODEL



MULTIFACTORIAL NATURE OF SEXUAL BEHAVIOR



WHY?

- Quality of life issue
- Sexual problems are common
- Legitimizes patients rights
- Basic human right (WHO)
- Our responsibility

BARRIERS TO ASKING… THE LAST TABOO

- Embarrassment
- Inadequate knowledge
- Higher priorities
- Reimbursement is poor
- Time

HOW TO ASK

- OPEN ENDED QUESTIONS
  - Many people have concerns/questions about their sexuality. What questions or issues would you like to discuss?
  - Many women, after menopause notice a change in their sexuality, have you noticed any?
  - Many women on hormonal contraception notice a change in their sexuality, have you noticed any?
  - Many women who have had cancer (diabetes, hypertension, heart disease) notice a change in their sexuality, have you noticed any changes?

- Be comfortable
- Maintain eye contact
- Appropriate language

"ALLOW" ALGORITHM

- A: Ask
- L: Legitimize
- L: Limitations – REFER
- O: Open up for further discussion and evaluation
- W: Work together to develop a treatment plan

SCREENING QUESTIONAIRRES

- Decreased Sexual Desire Screener (DSDS)
- (www.obgynalliance.com/files/fsd/DSDS_Pocketcard.pdf)
- Female Sexual Function Index(FSFI)
- (www.fsfiquestionnaire.com)

NORMAL SEXUAL RESPONSE

- Arousal causes increased blood flow, swelling of the vagina, vulva, transudation from the vagina
- Pelvic nerve stimulation results in clitoral smooth muscle and arterial smooth muscle dilation.
- Leads to increased clitoral intracavernous pressure, causing enlargement of the clitoris
- Orgasm reflex with rhythmic contractions of perineal, bulbocavernosus and pubococcygeus muscles with subsequent release of endogenous opioids, serotonin, prolactin, and oxytocin

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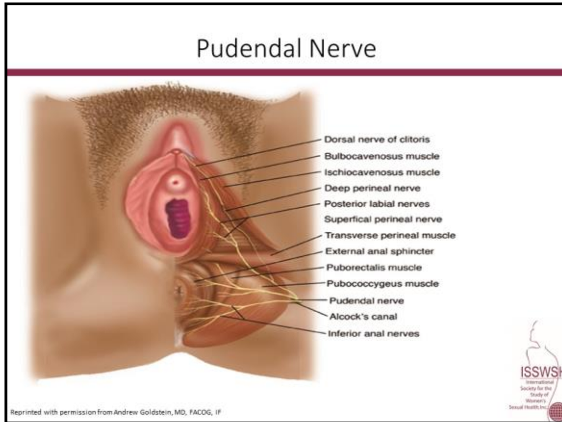
PERIPHERAL INNERVATION

- Motor Innervation
  - Parasympathetic-sacral cord
    - Early genital arousal-engorgement of the clitoris, labia, vagina, lubrication response
  - Sympathetic-lumbar spinal cord
    - Late stages of sexual arousal-increased heart rate, BP and orgasm
- Sensory Innervation
  - Pudendal nerve (clitoris, vulva, striated pelvic and perineal muscles)
  - Hypogastric nerve (noxious information from uterus, cervix, ovaries)
  - Vagus (cervix and vagina)



HISTORY

- Onset
- Acquired or Life- long
- General or Specific
- Factors that make it better or worse
- Past Therapy
- Medical/Surgical/Gynecologic History
- Medications
- Abuse
- Exercise

HISTORY

- Quality of relationship
- Partners age, health
- Issues of:
  - fatigue
  - Body image
  - Privacy
  - Stress
  - Timing

HISTORY

- Use of:
  - Lubricants
  - Dilators
  - Moisturizers

PHYSICAL EXAM

- Complete Gyn Exam
- Vulva:
  - Color- erythema, pallor
  - Clitoris- size, color, smegma, lesions, pain, phimosis
  - Labia- present, absent % resorption
  - Lesions- lichenification, ulcers, fissures
  - Neurologic exam
  - Cotton Swab test
  - Vulvoscopy
- Vagina
  - Color
  - pH

PHYSICAL EXAM

- Vagina
  - Rugae
  - Discharge
- Pelvic Floor Muscles
- Bimanual exam
- Digits

LAB TESTING

- CBC
- CMP
- LIPIDS
- TSH
- PROLACTIN
- LH/FSH
- ESTRADIOL
- TOTAL TESTOSTERONE
- SHBG
- MICROSCOPY (pH, wet mount, KOH)
- CULTURES

HSDD

- Most common of FSD
- Peaks ages 40-60
- Increased in women with surgical menopause

HSDD NEUROENDOCRINE FACTORS

- Major determinent of women's sexual function
- Central contribution from neurotransmitters
- Sex steroids exert activational effects in order to prime the brain

HSDD-ETIOLOGY

- Pelvic pain
- Arousal/orgasmic disorders
- Chronic disease
- Hyperprolactinemia
- Thyroid disease
- Psychological illnesses
- Medication
- Menopause

MEDICATIONS ASSOCIATED WITH FSD

- PSYCHOTROPIC DRUG CLASSES
  - Antipsychotics
  - SSRIs
  - Lithium
  - SNRIs
  - Tricyclic Antidepressants
  - Anti-epilectics

MEDICATIONS ASSOCIATED WITH HSDD

- Antihypertensive medications
  - Beta blockers
  - Alpha blockers
  - Diuretics
- Cardiovascular medications
  - Lipid lowering agents
  - Digoxin

MEDICATIONS ASSOCIATED WITH HSDD

- Hormones
  - Oral contraceptives
  - Estrogens
  - Progesterone
  - Anti- androgens
  - GNRH agonists
- Other
  - Histamine H-2 receptor blockers
  - Opioids,endocabinoids
  - NSAIDS
  - Chemo drugs- AI's
  - Weight loss agents

BIOLOGIC APPROACHES FOR HSDD

- Increase androgens (both locally and systemically)
- Increase dopamine
- Increase norepinephrine
- Modulate serotonin
- Melanocortins

HSDD-TREATMENT

- Treat under-lying systemic illness
- Evaluate medications, timing, dosage
- Joint therapy, if appropriate
- Diet
- Exercise
- Structured tasks
  - Fantasy box
  - Deliberate fantasy
  - Erotica
  - Sexual devices

HSDD-TREATMENT

- Medications
  - Testosterone
  - Estrogen-Progesterone
  - Wellbutrin
  - Arginmax
  - Oxytocin
  - Melanacortin
  - NE Agonist
  - Addyi

HSDD-TREATMENT

- Education
  - Review female sexual response cycle
  - Mindfulness
  - Change
  - Discuss normative lessening of desire

TESTOSTERONE THERAPY FOR HSDD

Androgenic effects vary from person to person based on enzymatic activity and receptor response

Testosterone levels do not always correlate with degree of sexual dysfunction

- However, randomized, placebo controlled trials consistentl show benefits of transdermal testosterone vs. placebo for sexual desire and arousal, orgasm, pleasure, satisfaction, and pain

Use of testosterone therapy is based on clinical evidence that exogenous testosterone improves libido, arousal, pleasure and overall satisfaction

TESTOSTERONE THERAPY FOR HSDD

RCTs have established efficacy of transdermal patch for relieving symptoms of HSDD
- Naturally and surgically menopausal women
- With and without concomitant ET or EPT

Main side effects: increased hair growth and acne

Reassuring safety data, although inconclusive, with respect to cardiovascular, breast, endometrial outcomes
- Long term safety data demonstrate no significant impact on intermediate metabolic endpoints and a low rate of cardiovascular events and breast cancer in postmenopausal women at increased cardiovascular risk.

MONITORING OF TESTOSTERONE THERAPY

Annual breast and pelvic exams

Annual mammography

Evaluation of abnormal bleeding

Evaluation for acne, hirsutism, androgenic alopecia, voice changes, clitoromegaly

Monitor testosterone by mass spectrometry
- SHBG, calculated free T

Goal: not to exceed normal range for reproductive-aged women

Lipid profile, LFTs, CBC at baseline, 6 months, then annually

Use for > 6 months contingent on clear improvement and absence of adverse events

TESTOSTERONE THERAPY FOR HSDD

Transdermal testosterone treatment has been shown to improve sexual function in postmenopausal womei

May be a role for testosterone in select patients

Long term safety and efficacy RCT data are lacking

Not FDA-approved for women
- Intrinsa Patch- Never received FDA approval, approved in Europe, taken off the market
- Libigel- Never received FDA approval

Aim for normal physiologic range in premenopausal women

HSDD TREATMENT- FLIBANSERIN (ADDYI)

- Mixed post-synaptic 5HT 1A agonist and 5HT 2A antagonist
  - 5HT1 agonists could have pro-sexual effects
  - 5HT2A antagonists could have pro-sexual effects
- Activity at dopamine D4 receptors and moderate affinity for 5HT2B and 5HT2C receptors
- Region-specific elevations in dopamine and norepinephrine offset inhibitory serotonergic activity resulting in increased desire pathways
- Serotonin may act as sexual satiety signal
- Improvement in the number of SSE's

FLIBANSERIN

- FDA approved for generalized HSDD in premenopausal women not caused by:
  - Medical or psychiatric condition
  - Relationship problems
  - Effects of a medication/drug
- 100 mg daily at bedtime
- Reevaluate at 8 weeks
- REMS program and certification to prescribe
- Warnings:
  - Hypotension and syncope due to interaction with alcohol
  - Avoid in patients with liver impairment or on CYP3A4 inhibitors

FLIBANSERIN PRESCRIBING

- Due to alcohol interaction
  - Patients must abstain from alcohol
  - Evaluate patients ability to do this
  - Phase III trials no adverse reaction-was reported in a separate alcohol interaction study
- Contraindications
  - Use of alcohol
  - CYP-3A4 inhibitors
    - HIV drugs, antifungals, antibiotics (Cipro, macrolides), diltiazem, verapamil, conivaptan, nefazondone
  - Hepatic impairment

HSDD
FLIBANSERAN

- Adverse events (10%)
  - Nausea
  - Dizzyness
  - Fatigue
  - Syncope

TREATMENT HSDD-ON THE HORIZON

- BREMELANOTIDE
  - Melanocortin receptor-4 agonist, modulates sexual behavior at hypothalamic level
  - Analog of MSH
  - Aids in translating sexual cues into genital response
  - Benefits desire and arousal
  - Phase III trials - showed significant improvement in desire, arousal, SSE's, orgasm and decrease distress
  - On demand use, subq administration
- LOREXYS
  - Orgasm and ecstasy
  - Combination of 2 antidepressents in slow release formula
  - Trazodone (Desyrel) and Bupropion (Wellbutrin)
  - Wellbutrin-Norepinephrine and dopamine reuptake inhibitor
  - Trazadone 5-HT2A antagonist, moderate 5-HT1A partial agonist

HSDD TREATMENT - ON THE HORIZON

- LYBRIDO (low sensitivity to sexual cues)
  - Testosterone/Sildenafil: increase brain's response to sexual cues and enhances genital sexual response
- LYBRIDOS (high sexual inhibition)
  - Testosterone/Buspirone: increases brain's response to sexual cues and reduces inhibitory response to sexual cues

PAIN

PRIMUM NON NOCERE

- Do not attribute dyspareunia to abuse, anxiety, depression just because YOU can't figure out what is going on
- Chronic dyspareunia is only rarely caused by chronic infection. Do not sterilize the vagina.
- Do not treat GBS, E.coli, Klebsiella , and other non-pathogenic species
- Do not use topical steroids without a diagnosis
- Do not biopsy unless you have some idea what the diagnosis is
- Do not suggest: a glass of wine, an erotic video, a lubricant, etc.

PAIN

- Determine the origin of the pain
  - Introital (insertional)
  - Vaginal
  - Pelvic (pain with deep thrusting)

DEEP DYSPAREUNIA ETIOLOGY

- Endometriosis
- Pelvic Congestion Syndrome
- IC
- Uterine Retroversion
- Uterine Leiomyomas
- Adenomyosis
- PID
- Pelvic Adhesions
- IBS
- History of Sexual Abuse

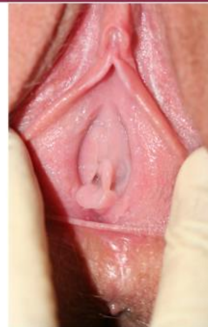
PAIN

- INFECTIOUS: recurrent candidiasis, HSV
- INFLAMMATORY: LS, LP, immunobullous
- NEOPLASTIC : Paget, squamous cell ca
- NEUROLOGIC: nerve damage, post-herpetic neuralgia, neuroma
- TRAUMA: genital mutilation, obstetrical
- IATROGENIC: radiation, chemo
- HORMONAL DEFICIENCIES: GSM, lactational amenorrhea

INTROITAL DYSPAREUNIA ETIOLOGY

- Hormonally Mediated Vestibulodynia
- Neuroproliferative Vestibulodynia
- Hypertonic Pelvic Floor Dysfunction
- Lichen Sclerosis
- Lichen Planus
- Desquamative Inflammatory Vaginitis
- Chronic Candidiasis
- Vulvar Granuloma Fissuratum

The Vestibule



- Lateral border is Hart's line
- Medial border is the hymen and urethra
- Ostia of the Bartholin's, Skene's, and minor vestibular glands
- Derived from the primitive urogenital sinus
- Different blood supply from the vagina
- Rich in AR (> ER)

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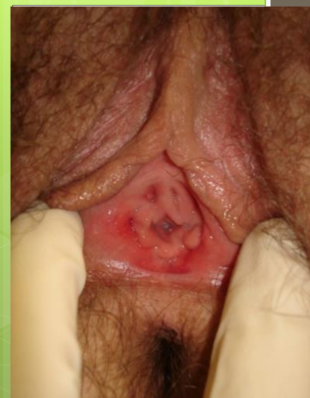
AR= androgen receptor; ER= estrogen receptor

VESTIBULODYNIA

- Hormonally Mediated PVD
  - OCP's
  - Menopause
  - Oophorectomy
  - Hormonal control of endometriosis, hirsuitism
  - Breast-Feeding
  - Infertility Treatments
  - Breast Cancer Treatments



Hormonally Associated Vulvar Pain

Commonly caused by
OCP's
Menopause
Oopherectomy
Hormonal treatments for endometriosis or Hirsuitism
Breast feeding
Infertility treatments
Breast cancer chemo

VESTIBULODYNIA-OCP INDUCED

- Women who use OCP's before 17 y.o. have a RR of 9.2 of developing vestibulodynia
- Later start RR of 4.6
- More common with anti-androgenic and low dose OCP's

VESTIBULODYNIA-OCP INDUCED

- Diffuse vestibular tenderness over the entire vestibule
- Ostia of glands generally erythematous
- Vestibule diffuse pallor with overlying erythema
- Fissures very common
- Low estradiol, low free testosterone and high SHBG

TREATMENT HORMONALLY INDUCED VESTIBULODYNIA

- Introitus replete with testosterone receptors
- Stop OCP's (may or may not help), consider alternate means of birth control
- Estradiol 0.02% with testosterone 0.1% ointment applied BID
- Lidocaine gel prior to intercourse
- Non irritating lubricants
- May take up to 6 months to see improvement

CONGENITAL NEUROPROLIFERATIVE

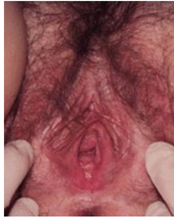
- Increased density of C-afferent nociceptors in the vestibular mucosa
- Primary: Congenital neuronal hyperplasia in the primitive urogenital endoderm
  - Umbilical hypersensitivity

ACQUIRED NEUROPROLIFERATIVE

- Women report onset of symptoms after severe or recurrent candidiasis or allergic reaction
- Increased mast cells in mucosa
- Proliferation of C-afferent nociceptors

TREATMENT FOR ACQUIRED NEUROPROLIFERATIVE

- Interferon and montelukast if within 6 months of onset of symptoms
- If after 6 months: topical lidocaine, caspsaicin 0.025%,desapramine, gabapentin
- Consider referral to vulvar specialist for vestibulectomey



SEXUAL PAIN
VULVOVAGINAL ATROPHY

- Part of GSM
- Etiology:
  - Lack of estrogen
  - Menopause
  - AI's
  - Radiation
  - Chemotherapy

SEXUAL PAIN
VVA

- Pathophysiology:
  - Decrease in superficial cells
  - Increase in parabasal cells
  - Decrease glycogen
  - Decrease in lactic acid
  - Increase in pH

PREVALENCE OF GSM

- >50 million women in the U.S. over 51 by 2020
- GSM symptoms affect at least 50% of PM women
  - Prevalence increases with menopausal stage: 4% in perimenopausal transition and 47% 3 years following final menstrual period
  - Significant under-diagnosis, under-treatment and /or delays in seeking treatment

PREVALENCE OF GSM

- GSM is chronic, progressive and symptoms do not improve without treatment
- Many women remain unaware that vulvar and vaginal changes are a direct result of the menopausal transition
- Communication challenges/barriers exist for both health care providers and patients

GSM
SIGNS AND SYMPTOMS

- Dryness and insufficient moistness
- Dyspareunia
- Itching
- Burning sensation
- Soreness
- Tightness
- Loss of elasticity

GSM SIGNS AND SYMPTOMS

- Recurring UTI's
- Thinning of vaginal tissue, alteration of keratinization
- Mucosal defects- petechiae, microfissures, ulceration, inflammation
- Shortening, fibrosis, obliteration of vault, narrowing of introitus
- Smoothing of fornix, loss of rugae
- Decreased blood flow
- Telescoping of urethra

TREATMENT OF GSM ESTROGEN

- Lowers vaginal pH
- Thickens epithelium
- Increases superficial cells and decreases parabasal cells
- Increases rugae and elasticity
- Increases secretions
- Increased vibratory sensation
- Alleviates subjective symptoms of dryness, itching and irritation

ESTROGEN PREPATIONS

Formulation	Composition (Product Name)	Dosing
**Cream	17β estradiol (Estrace®) Conjugated estrogens (Premarin®)	Initial: 2-4 g/d for 1-2 wk Maintenance: 1 g/d (0.1 mg active ingredient/g) 0.5-2 g/d (0.625 mg active ingredient/g)
Tablet	Estradiol hemihydrate (Vagifem®)	Initial: *10 mcg/d for 2 wk Maintenance: 10 mcg twice/wk
**Ring	17β estradiol (Estring®)	Device contains 2 mg Releases 7.5 mcg/d for 90 d

VVA ESTROGENS

- Contraindications:
  - Undiagnosed vaginal bleeding
  - Current/past history of breast cancer
  - Estrogen-dependent cancer
  - VTE
  - Hepatic impairment
  - Pregnancy
  - Protein C or S deficiency
  - Thrombophilic disorder
  - Arterial thromboembolism within 12 months

NON-HORMONAL TREATMENT OF GSM

- Behavioral
  - Smoking cessation
  - Regular painless sexual activity
- Non-hormonal vaginal therapy
  - Moisturizers
  - Lubricants
  - Dilators
  - Fractional CO2 laser
  - Osphena

MOISTURIZERS

Product	Ingredients	Use	Studies
Replens	Polycarbophil Glycerin, mineral oil	Every 3 days	Yes
Me again	Hyaluronic acid Propylene glycol, paraben	7 days > 2/wk	HA-yes
KY Liquibeads (ovules)	Dimethicone, Gelatin, Glycerin, Dimethiconol	?	No
KY long lasting	Various polymers Glycerin, mineral oil	?	No
Emerita personal moisturizer	Aloe Vera Gel, Calendula, Vitamin E, Ginseng, Chamomile, Allantoin	As needed	No
Moist Again	Carbomer, aloe vera glycerin, chlorhexidine	As needed	No
Hyalofemme	Hyaluronic acid	7 days > 2/wk	HA-yes
Pre-seed	Hydroxyethylcellulose, Pluronic, Arabinogalactan	As needed	Yes

LUBRICANTS

Base	Ingredients	Safe with latex?	Staining	Comments
Water	Deionized water, glycerin, propylene glycol	Yes	No	Rarely causes irritation but dries out with extended activity
Petroleum	Mineral oil, petroleum jelly, baby oil	No; do not use with condoms, diaphragms, or cervical caps	Yes	Irritating to vagina
Natural oil	Avocado, olive, peanut, corn	Yes	Yes	Safe (unless peanut allergy); non-irritating to vagina
Silicone	Silicone polymers	Yes	No	Non-irritating to vagina, long-lasting and waterproof

DHEA FOR GSM INTRAROSA

- DHEA 0.5% 6.5 mg vaginal suppository
- FDA approved for treatment moderate to severe dyspareunia associated with GSM
  - Inserted intravaginally once daily at bedtime
  - Phase 3 trials reveal improvements over placebo at 4 primary endpoints:
    - Decreased percentage of parabasal cells
    - Decreased vaginal pH
    - Decreased pain with sexual activity
    - Improvement in moderate to severe dryness

DHEA FOR GSM INTRAROSA

- Serum steroid levels remained well within normal postmenopausal range
- Most common adverse effect: discharge (6 %) due to melting vehicle
- No change in endometrial atrophy after 12 months
- Converted in the cell to estrogen and testosterone

FRACTIONAL CO2 LASER

- Tissue coagulation by laser energy penetrates into deeper tissues to stimulate synthesis of new collagen and ground substance of the matrix
- Supra-physiologic level of heat generated by CO2 laser induces rapid and transient change, restoring permeability of connective tissue
- Heat shock response activate small family of heat shock proteins
- Inflammatory response stimulates fibroblasts to produce new collagen and extracellular matrix

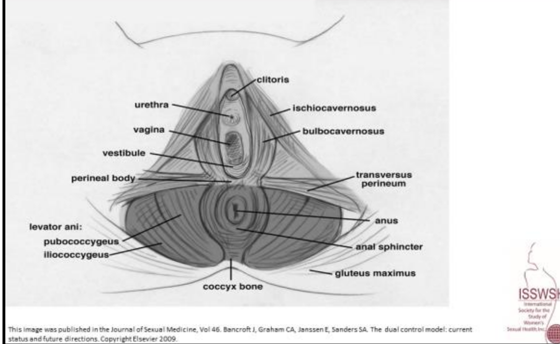
VVA NON-HORMONAL TREATMENTS

- Osphena
  - SERM
  - Agonistic on vaginal tissue and endometrium
  - Effect on brease
  - Daily oral pill

VVA NON-HORMONAL TREATMENTS

- Osphena-Contraindications
  - Undiagnosed vaginal bleeding
  - Current or past hx breast cancer
  - Estrogen dependent cancer or history
  - VTE
  - Arterial thromboembolism
  - Pregnancy

Pelvic Floor Muscles



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OVERACTIVE PELVIC FLOOR MUSCLES

- INCREASED TONE RESULTS IN:
  - Decrease in blood flow and oxygen to the muscles of the pelvic floor and build up of lactic acid
- SYMPTOMS:
  - Generalized pelvic pain/burning
  - Superficial (mucosal) tenderness where muscles insert (4,6,8) on the vestibule, resulting in
    - Introital dyspareunia
    - Urinary symptoms of frequency, hesitancy, incomplete emptying
    - Constipation, hemorrhoids and rectal fissures
- PHYSICIAL EXAM:
  - Erythema where the muscles insert at the vestibule
  - Multiple trigger points, muscle weakness

FSD
CONCLUSION

- All women should be screened for sexual issues
- Legitimize their concerns
- If you are uncomfortable, do not have the time or the knowledge, then refer
- Although the science is in its infancy, there is much that can be done to help your patients have a satisfying, sexual life.