



A Multidisciplinary Approach to the Treatment of Provoked Vestibulodynia Workshop 19 Monday 23 August 2010, 14:00 – 17:00

Time	Time	Topic	Speaker
14:00	14:05	Introduction	Marie-Josée Lord
14:05	14:45	Gynaecological evaluation and medical treatment approach	Samir Khalifé
14:45	15:30	Psychological Approach	Sophie Bergeron
15:30	16:00	Break	
16:00	16:40	Physical Therapy Evaluation and Treatment	Claudia Brown
16:40	16:45	Closing Remarks	Marie-Josée Lord
16:45	17:00	Questions & Discussion	

Aims of course/workshop

In spite of its prevalence, Provoked Vestibulodynia (PVD) is underdiagnosed. Its symptoms are often classified within the realm of psychological disorders, partially due to its unclear physical aetiology and its lack of objective findings. In addition, very successful advances in the biopsychosocial management of this condition are not universally known, leaving many concerned practitioners with the belief that there are few available options for the treatment of this problem. This workshop will leave gynaecologists and general practitioners with a clearer understanding of the nature of provoked vestibulodynia and hopefully lead to a more expedient diagnosis. In addition, it will provide doctors and physiotherapists with a concrete outline for a successful strategy in the multidisciplinary treatment of this condition.

Educational Objectives

- To understand the common causes of dyspareunia, in particular Provoked Vestibulodynia (PVD), and the medical approach to treatment
- To understand the implications of the psychological aspect of PVD
- To learn about the detailed assessment of the pelvic floor musculature and related structures and relevant physiotherapy interventions
- To understand the importance of a multidisciplinary approach to the treatment of Provoked Vestibulodynia

Terminology and Classification of Vulvodynia

In 2003, the members of the International Society for the Study of Vulvovaginal Disease (ISSVD) proposed and accepted the following definitions and hoped that this terminology would now be used by practitioners involved in the management of patients with vulvar pain.

“*Vulvodynia* is defined as vulvar discomfort, most often described as burning pain, occurring in the absence of relevant visible findings or specific, clinically identifiable, neurological disorder.” (Moyal-Barracco & Lynch, 2004)

Vulvodynia is subdivided into 2 categories; generalized and localized.

- 1- **Generalized Vulvodynia** refers to the involvement of the whole vulva. Unprovoked Generalized Vulvodynia (GVD) refers to the discomfort occurring spontaneously without a physical trigger. This was formerly referred to as Essential or Dysesthetic Vulvodynia.
- 2- Localized Vulvodynia refers to the involvement of a portion of the vulva such as the vestibule (vestibulodynia), the clitoris (clitorodynia), etc. When the discomfort is triggered by physical contact it is called Provoked Localized vulvodynia or **Provoked Vestibulodynia (PVD)** .

“*Vestibulitis* has been eliminated from the IISVD terminology because the presence of inflammation, as implied by the suffix ‘*itis*’, has not so far been documented. The term *vestibulitis* is now replaced by *provoked vestibulodynia*, defined as discomfort on intromission (introital dyspareunia), clothing pressure, tampon insertion, cotton-tipped applicator pressure, fingertip pressure, etc.” (Moyal-Barracco & Lynch, 2004)

Provoked Vestibulodynia

Gynaecological evaluation and medical treatment approach

Samir Khalifé

OBJECTIVES

- Definition of the most frequent sexual pain disorders
- Clinical evaluation of sexual pain disorders
 - Clinical evaluation of provoked vestibulodynia
- Treatment modalities of provoked vestibulodynia

SEXUAL PAIN DISORDERS

- **Dyspareunia:** Persistent or recurrent pain with attempted or complete vaginal entry or penile–vaginal intercourse
- **Vaginismus**

Basson R: Summary of the recommendations on sexual dysfunctions in women. J Sex Med. 2004 Jul;1(1):24-34

SEXUAL PAIN DISORDERS

- **Vaginismus:** Persistent or recurrent difficulties in allowing vaginal entry of a penis, finger or any object, despite the woman's expressed wish to do so. There is often (phobic) avoidance; anticipation, fear or experience of pain; and variable involuntary contraction of pelvic muscles. Structural or other physical abnormalities must be ruled out or addressed.

Basson R: Summary of the recommendations on sexual dysfunctions in women. J Sex Med. 2004 Jul;1(1):24-34

Prevalence of dyspareunia

- Prevalence in the general population: ~15%
 - Laumann et al (1999). JAMA 281(6),p 537-544-
 - Harlow et al (2001). AmJObGyn 186 (3), p.547-550
- If you don't ask about it, the majority of patients will not mention it

SEXUAL PAIN DISORDERS

- **Dyspareunia:** 15%
- **Vaginismus:** 1%

Basson R: Summary of the recommendations on sexual dysfunctions in women. J Sex Med. 2004 Jul;1(1):24-34

ISSVD Terminology and Classification of Vulvar Pain (2003)

- (A) Vulvar pain related to a specific disorder
 - (1) Infectious (e.g., candidiasis, herpes, etc.)
 - (2) Inflammatory (e.g., lichen planus immunobullous disorders)
 - (3) Neoplastic (e.g., Paget disease, squamous cell carcinoma, etc.)
 - (4) Neurologic (e.g., herpes neuralgia, spinal nerve compression, etc.)
- (B) Vulvodynia
 - (1) Generalized
 - (a) Provoked (sexual, nonsexual or both)
 - (b) Unprovoked
 - (c) Mixed (provoked and unprovoked)
 - (2) Localized (vestibulodynia, clitorodynia, hemivulvodynia, etc.)
 - (a) Provoked (sexual, nonsexual or both)
 - (b) Unprovoked
 - (c) Mixed (provoked and unprovoked)

Moyal-Barracco M: 2003 ISSVD terminology and classification of vulvodynia: a historical perspective. J Reprod Med. 2004 Oct;49(10):772-7

ISSVD Terminology and Classification of Vulvar Pain (2003)

VVS

- (A) Vulvar pain related to a specific disorder
 - (1) Infectious (e.g., candidiasis, herpes, etc.)
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 - (3) Neoplastic (e.g., Paget disease, squamous cell carcinoma, etc.)
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Moyal-Barracco M: 2003 ISSVD terminology and classification of vulvodynia: a historical perspective. J Reprod Med. 2004 Oct;49(10):772-7

CLINICAL APPROACH FOR A DIAGNOSTIC ETIOLOGY

- Where does it hurt
 - Superficial or introital dyspareunia
 - Deep dyspareunia
- When does it hurt
- What are the associated symptoms

Graziottin A: Etiology and diagnosis of coital pain. J Endocrinol Invest. 2003;26(3 Suppl):115-21. Review.

Introital dyspareunia

- Hormonal etiology
- Vulvovaginitis
- Vulvar dystrophy
- Iatrogenic factors Facteurs
- Muscular Factors
- **Provoked localized vulvodynia**
- Others:
 - Neurological (pudendal nerve)
 - Auto-immune (Sjogren' syndrome)
 - Genital trauma

Graziottin A: Etiology and diagnosis of coital pain. J Endocrinol Invest. 2003;26(3 Suppl):115-21. Review.

Deep dyspareunia

- Endometriosis
- Pelvic inflammatory disease
- Levator ani myalgia
- Involution of the vagina and uterus in post menopause

Graziottin A: Etiology and diagnosis of coital pain. J Endocrinol Invest. 2003;26(3 Suppl):115-21. Review.

Provoked localized vulvodynia

- Severe pain on vestibular touch or attempted vaginal entry
- Tenderness when pressure is localized within the vestibule
- Physical findings confined to vestibular erythema of various degrees

Friedrich, E. G. (1987). Vulvar vestibulitis syndrome. Journal of Reproductive Medicine, 32, 110–114

Sexual history

- Sexual activity (presence?)
- Types of relations
- Individual(s) involved
- Satisfaction? Orgasmic?
- Dyspareunia
- Sexual dysfunction
 - Patient
 - Partner

Stenchever MA: Comprehensive Gynecology, Mosby, 1997

LISTEN AND REACT TO MESSAGES

- Tampons are painful to insert
- The smallest speculum please
- My previous doctor asked me to relax
- I always had a yeast infection that is impossible to treat

HISTORY TAKING FOR DYSpareunia

- Description
- Localization
- Relation with the menstrual cycle
- Complete chronology
- Previous treatments
- Long and free questionnaire

THE TRADITIONAL GYNECOLOGICAL EXAMINATION

- Inspection of the external genital organs and the introitus
- Palpation of the external genital organs and the introitus
- Speculum examination of the vagina and the cervix
- Digital vaginal and bimanual examination
- Rectovaginal examination
- Rectal examination

DIFFERENT APPROACH

- Do not hurt
- Proceed in a stepwise fashion, one visit at a time
- Do not touch the vestibule
- Do not insert a speculum first
- Insert a lubricated Q-tip
- Insert only one finger and then two

Khalifé S: personal communication

GEL LUBRICANT

- Hathaway JK: Is Liquid-Based Pap Testing Affected by Water-Based Lubricant? *Obstet Gynecol* 2006;107:66-70
- Kozakis L: Plastic specula: can we ease the passage? *Sex. Transm. Inf.* 2006;82:263-264
- Griffith WF: Vaginal speculum lubrication and its effects on cervical cytology and microbiology *Contraception* 72 (2005) 60-64
- Tavernier LA: Water versus gel lubricant for cervical cytology specimens. *The Journal of Family Practice* 2003 52;9:701-704

THE MYTH OF THE WATER BASED GEL LUBRICANT

- No difference in cervico-vaginal slide or liquid-based cytology
- No difference in the detection of chlamydia, gonorrhea, vaginal bacteriosis, candida...

GYNECOLOGICAL EXAMINATION

THE FORGOTTEN EXAMINATIONS

- The Q-tip test
- The examination of the pelvic floor musculature



PATIENT'S AND PARTNER PARTICIPATION

- The mirror
- Rating the pain on a scale of 1 to 10

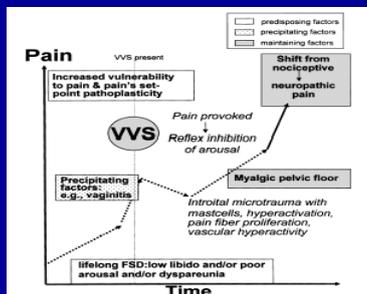
The Q-tip test



GYNECOLOGICAL EXAMINATION

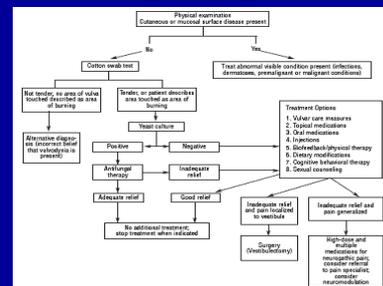
- The sequence of testing: the Q-tip test at the end
- Positive feedback : « it is a real physical pain»
- The control visit

Provoked localized vulvodynia



Graziottin A: Vulvar vestibulitis syndrome: a clinical approach. J Sex Marital Ther. 2004 May-Jun;30(3):125-39. Review.

Treatment of vulvodynia



Vulvodynia. ACOG Committee Opinion No. 345. Obstet Gynecol 2006;108:1049-52.

Treatment of Provoked Vestibulodynia Standard treatments

- Topical Preparations
 - Estradiol may decrease symptom severity
 - Anesthetics
 - Topical compounded formulations with one or more active ingredients (e.g., anesthetic, antidepressant, anticonvulsant)

<http://learnprovider.nva.org/index.htm>

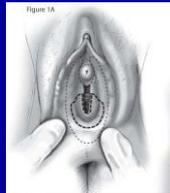
Treatment of Provoked Vestibulodynia Standard treatments

- Oral “Pain-blocking” Medications
 - Tricyclic antidepressants (e.g., amitriptyline)
 - Anticonvulsants (e.g., gabapentin, pregabalin, lamotrigine)
 - SSNRI medications (e.g., duloxetine, venlafaxine)

<http://learnprovider.nva.org/index.htm>

Treatment of Provoked Vestibulodynia Standard treatments

- Pelvic Floor Therapy
- Sequential Nerve Blocks (subcutaneous, pudendal and caudal)
- Surgery
- Psychotherapy



<http://learnprovider.nva.org/index.htm>

Treatment of Provoked Vestibulodynia Efficacy uncertain and debated

- Topical Steroids
- Interferon injections
- Topical Cromolyn
- Subcutaneous Steroid/Anesthetic Injections
- Diet Modification
- Botox Injections

<http://learnprovider.nva.org/index.htm>

Treatment of Provoked Vestibulodynia Experimental

- Leukotriene Receptor Antagonist
- Topical Nitroglycerin
- Topical Capsaicin
- KTP-nd: YAG laser therapy
- Photodynamic Therapy
- Transcutaneous Electrical Nerve Stimulation
- Sacral Neuromodulation

<http://learnprovider.nva.org/index.htm>

Treatment of Provoked Vestibulodynia PRIMUM NON NOCERE

- First step:
 - Psychotherapy
 - Pelvic Floor Therapy
- Second step:
 - Xylocaine ointment 5%
 - Elavil
- Last resort: vestibulectomy

Khalifé S: personal communication

RCT

Variable	Vestibulectomy	sEMG biofeedback	GCBT
Vestibular pain index	70.0	23.7	28.6
Pain intensity during intercourse	22.5	18.0	37.5
MPQ-FRI	46.8	22.8	27.7
MPQ - Sensory scale	47.1	19.0	20.7

As compared with pretreatment, study completers of all treatment groups reported statistically significant reductions on pain measures at post treatment and 6-month follow-up, although the vestibulectomy group was significantly more successful than the two other groups

Treatment gains were maintained at the 2.5-year follow-up

Bergeron S et al: A randomized comparison of group cognitive-behavioral therapy, surface electromyographic biofeedback, and vestibulectomy in the treatment of dyspareunia resulting from vulvar vestibulitis. Pain. 2001 Apr;91(3):297-306.

Bergeron S et al: Surgical and Behavioral Treatments for Vestibulodynia: Two-and-One-Half-Year Follow-up and Predictors of Outcome. Obstetrics & Gynecology: January 2008 - Volume 111 - Issue 1 - pp 159-16

HOW TO SELL THE PRODUCT Simple, down to earth explanations

- Women with VVS demonstrated significantly more vaginal hypertonicity, lack of vaginal muscle strength, and restriction of the vaginal opening, compared to women with no pain with intercourse.
- Anal palpation could not confirm generalized hypertonicity of the pelvic floor.

Reissing ED et Al: Pelvic floor muscle functioning in women with vulvar vestibulitis syndrome. J Psychosom Obstet Gynaecol. 2005 Jun;26(2):107-13.

HOW TO SELL THE PRODUCT Simple, down to earth explanations

Set of 20 Von Frey hairs



PukMar;96(1-2)all CF et al : Vestibular tactile and pain thresholds in women with vulvar vestibulitis syndrome. Pain. 2002):163-75.

HOW TO SELL THE PRODUCT Simple, down to earth explanations

- Apprehension
- Why me
- When am I going to have a sex life like my friends or like before
- Is my relationship going to last
- One more time, we will give a try, he will have fun and I will have pain...

Khalifé S: personal communication

Traditional approach

- **Medecine**
 - Physical pathology (treat the pathology)
 - OR
 - “It is in the head” (refer to psychology)
- **Psychology**
 - Conflict or sexual abuse (treat)
 - OR
 - Physical pathology (refer to gynecology)

Biopsychosocial approach

- Non simplistic
- Simultaneous psychological & physical approach for
 - Diagnosis
 - Etiology
 - Treatment
- Inspired by the contemporary research on pain (Melzack)

SEXUAL PAIN DISORDERS conclusion

- Reliable diagnosis
- Available treatments
- Family physicians and gynecologists: first line
 - Ask questions concerning dyspareunia
 - Ask questions concerning sexual dysfunctions
- If you don't ask about it, the majority of patients will not mention it

SEXUAL PAIN DISORDERS conclusion

- Examination could be brief (usually 2 visits)
- Pamphlets, internet resources ...
- Team work (Family physicians, gynecologists, sexologist, and physiotherapist...)

REFERENCE

<http://www.nva.org/>

Behavioral and Psychological Treatment of Provoked Vestibulodynia

Sophie Bergeron, Ph.D.
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McGill University Health Centre
Montréal, Canada

Outline of Presentation

- Psychosocial characteristics of provoked vestibulodynia
- Biopsychosocial model of sexual pain
- Treatment options
 - Cognitive-behavioral therapy
 - Exposure
 - Multimodal, interdisciplinary approach

Psychosocial Characteristics of Provoked Vestibulodynia

Psychosexual Functioning of Women with Provoked Vestibulodynia

- Lower intercourse frequency, lower levels of desire and arousal, more avoidant of sexual activities, and less orgasmic success (Meana et al., 1997; van Lankveld et al., 1996)
- More anxiety and negative feelings toward sexuality (Meana et al., 1997; Granot et al., 2002)
- Less childhood family support, more physical and sexual abuse as a child (Harlow & Stewart, 2005)
- More erotophobic (Meana et al., 1997)
- More negative sexual self-schema (Gates & Galask, 2001; Reed et al., 2003)

Dyspareunia in Adolescents

- Community sample of 1,425 girls aged 12-19-year-olds
- 20% of sexually active girls reported having regular pain during intercourse for at least 6 months
- 67% = primary form
- Experiencing severe pain at first tampon insertion was linked to a 4-fold risk of reporting chronic dyspareunia

Landry, T. & Bergeron, S. (2009). How young does vulvo-vaginal pain begin? Prevalence and characteristics of dyspareunia in adolescents. *Journal of Sexual Medicine*, 6, 927-35.

Dyspareunia in Adolescents (cont'd)

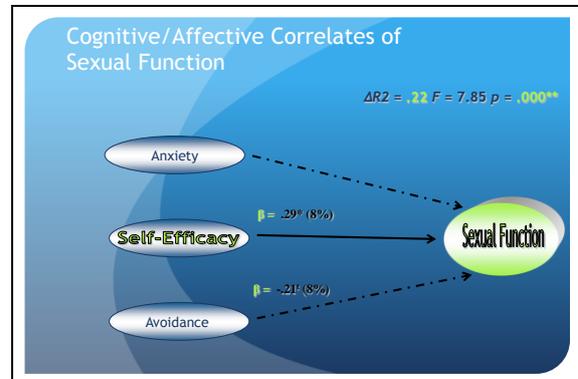
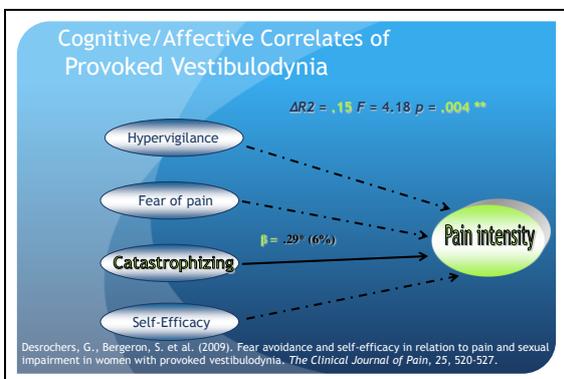
- More likely to experience pain during gynecological examinations and to use feminine hygiene products (douches, etc.) than normal controls (Landry & Bergeron, 2009)
- More likely to have been abused physically or sexually, to have a fear of abuse, to be anxious, and to lack social support than normal controls (Landry & Bergeron, 2009)

Pelvic Floor Hypertonicity

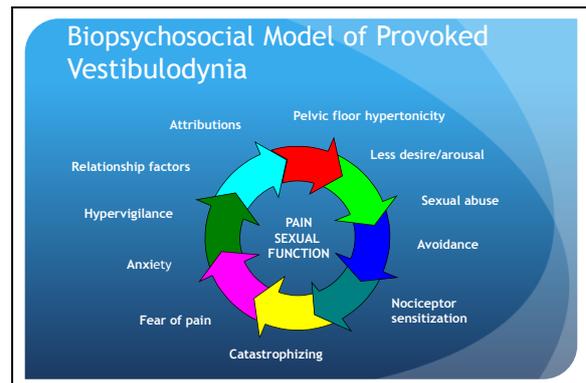
- Provoked Vestibulodynia > Controls (Reissing et al., 2003)
- Provoked Vestibulodynia > Controls (White, Jantos & Glazer, 1997)
- Provoked Vestibulodynia: more vaginal hypertonicity, lack of vaginal muscle strength, and restriction of the vaginal opening than controls (Reissing et al., 2005)

Romantic Relationships

- Dyadic adjustment of afflicted women and their partners are within norms (Desrosiers et al., 2008; van Lankveld et al., 1996)
- More relationship distress than controls (Meana et al., 1997; Hallam-Jones et al., 2001)
- Spouse solicitousness and hostility → increased pain during intercourse (Desrosiers et al., 2008; Rosen et al., submitted manuscript)



Biopsychosocial Model of Pain



Consequently...

- The treatment of provoked vestibulodynia must focus not only on underlying pathophysiological mechanisms, but on all the elements that maintain and exacerbate pain and associated sexual dysfunction

Treatment Options

Where is the Empirical Evidence?

- Current algorithms are largely based on retrospective case reports and lack sound empirical foundation
- Cognitive-behavioral and physical therapy do not figure prominently in these algorithms → often viewed as adjuncts to medical treatment
- Trial and error basis; hodge-podge of interventions

Behavioral and Psychological Treatment Options

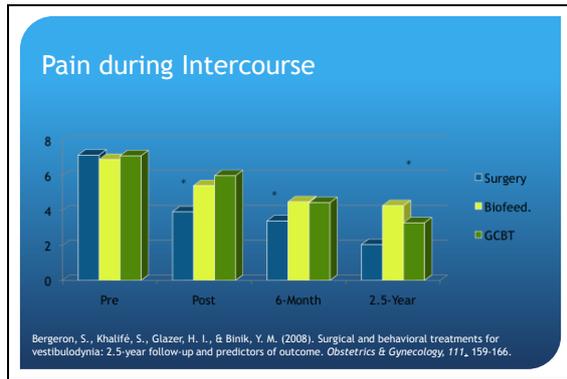
- Cognitive behavioral sex therapy/pain relief
- Therapist-aided exposure

Treatment Options

- Cognitive behavioral sex therapy/pain relief therapy
- Therapist-aided exposure

Why Cognitive-Behavioral Therapy?

- Only treatment that targets negative sexual and relationship sequelae directly
- Important source of psychological support
- CBT strategies are effective in reducing pain intensity in other pain conditions (Bradley, 1996)
- CBT shown to be efficacious in relieving vulvodynia and associated sexual difficulties (Masheb et al., 2009)
- Long-term follow-up: CBT = vestibulectomy



Provoked Vestibulodynia: A Randomized Comparison of Cognitive-Behavioral Therapy and Topical Treatment

Sophie Bergeron, Ph.D.
Université de Montréal

Co-Investigators



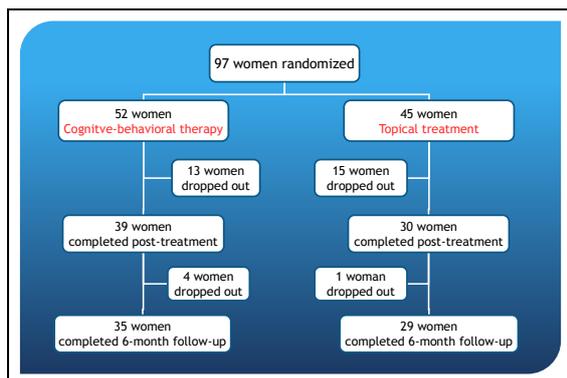
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Centre Hospitalier de l'Université de Montréal,
Montréal

Timeline

- Pre-Treatment Assessment
- Random Assignment
- 3-Month Treatment Period
- Post-Treatment Assessment
- 6-Month Follow-up Assessment



Treatment Arms

Group cognitive-behavioral therapy (GCBT)

- Conducted by three psychologists specialized in sex and couple therapy
- Cognitive-behavioral sex therapy and pain management
- 10 two-hour group sessions spread over 3 months
- Adherence to a treatment manual
- Weekly supervision of therapists
- Videotapes of sessions

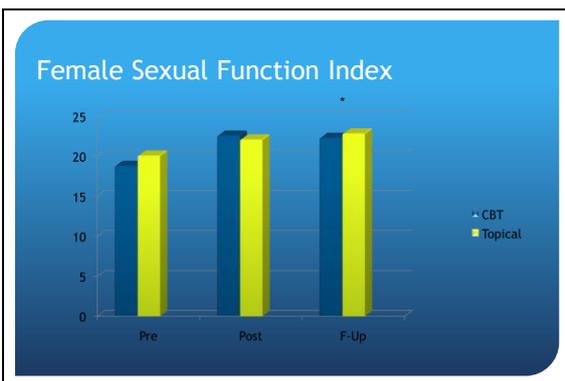
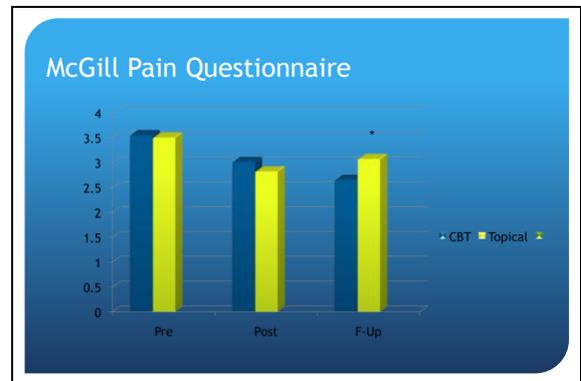
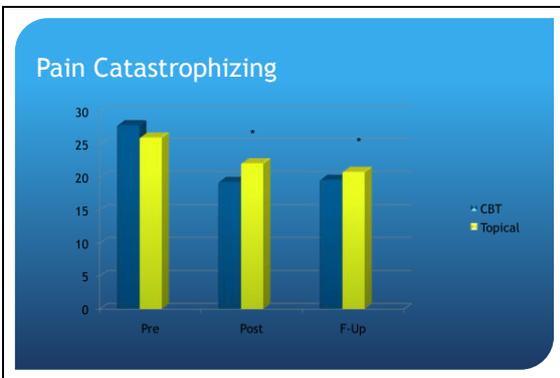
Behavioral and Psychological Treatment of Provoked Vestibulodynia

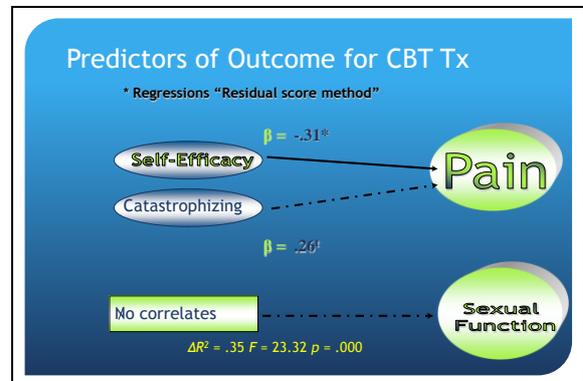
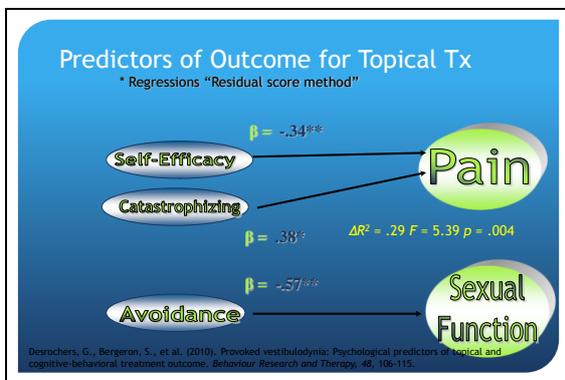
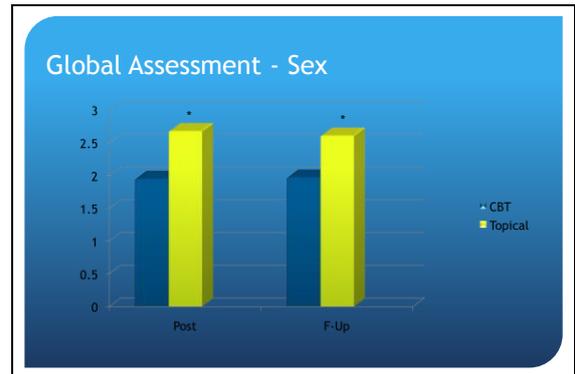
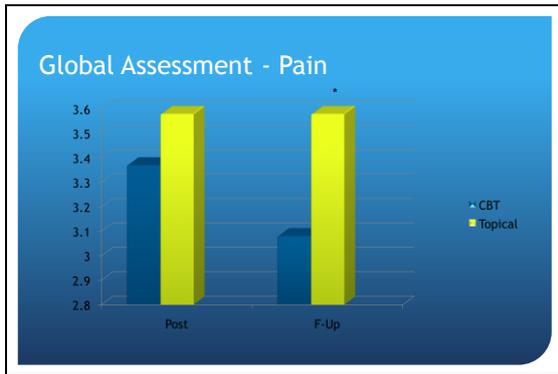
Sophie Bergeron, Ph.D.

Treatment Arms

Topical treatment

- 1% Hydrocortisone cream (Cortate 1%)
- Two applications per day for 13 weeks
- Discontinued after 8 weeks if no improvement
- Prescribed by two gynecologists
- Education about vestibulodynia and its day to day management (e.g. avoid tight clothing, use mild soap, etc.)
- Water-based lubricant recommended for intercourse





- ### Treatment Options
- Cognitive behavioral sex therapy/pain relief therapy
 - **Therapist-aided exposure**

- ### Why Therapist-Aided Exposure?
- RCT of CBT for vaginismus → 21% can engage in intercourse at one-year follow-up (van Lankveld et al., 2006)
 - Change mediated by reduced fear of coitus and reduced avoidance behavior (ter Kuile, van Lankveld et al., 2007)
 - Congruent with findings from Desrochers et al. (2010) study whereby successful outcome is predicted by reduced catastrophizing and avoidance, as well as increased self-efficacy

Therapist-Aided Exposure

- N=10 women with vaginismus, 4 of which were also diagnosed with provoked vestibulodynia by gynecologist (ter Kuile et al., 2009)
- 3 two-hour sessions in one week
- Gynecologist and psychologist
- Woman and partner

Therapist-Aided Exposure (contn'd)

- 9/10 participants reported engaging in successful intercourse after one-week treatment
- Gains maintained at one-year follow-up
- Significant decreases in fear and negative penetration beliefs
- No measure of pain

Cognitive-Behavioral Therapy in Real Life

- 10-session group intervention
- Individual therapy → 6 months to a year
 - Trauma
 - Other developmental issues
- Couple therapy → 6 months to a year
 - Attachment and intimacy issues
 - Significant relationship conflict

Behavioral Treatment Strategies

- Self-exploration
- Breathing (or other type of relaxation)
- Mindfulness
- Kegel exercises
- Vaginal dilatation
- Pain diary
- Expanding sexual repertoire
- Assertiveness training

Insertion Techniques

- Accommodators/dilators



Cognitive Treatment Strategies

- Education concerning a multidimensional view of pain
- Education concerning their type of vulvo-vaginal pain
- Cognitive restructuring focusing on pain catastrophizing, attributions, etc.
- Coping self-statements
- Sexual fantasies
- Focusing on pleasurable sensations

Desire and Arousal Issues

- Education re: how pain impacts on desire and arousal and how low desire and arousal may contribute to maintain pain
- Identification of sexual needs and preferences
- Identification of factors that facilitate the experience of sexual desire
- Communication re: sexual matters
- Fostering emotional intimacy between partners

Multimodal Treatment Approach

- Show patient that:
 - Her pain is real
 - You know something about it
 - You are competent to alleviate it to some degree
 - There is hope for improvement

Multimodal Treatment Approach

- Core principles
 - Provide education concerning specific sexual pain problem
 - Provide education concerning a multifactorial view of pain
 - Know what other health professionals are doing and develop a collaborative alliance
 - Do not take 'personally' patients' anger/frustration

Conclusions

- It is difficult to improve sexual functioning without reducing pain and difficult to reduce pain without improving sexual functioning
- A concurrent multimodal treatment paradigm may prove more beneficial to patients than the more common sequential approach
- The alliance between health professional and patient is key in the treatment of provoked vestibulodynia: work as multidisciplinary collaborative team

PHYSIOTHERAPY for PROVOKED VESTIBULODYNIA

1. Evaluation
 - History
 - Physical
 2. Problem list
 3. Goals of treatment
 4. Treatment plan
-

1. EVALUATION

History

- PMH
- Pain cycle
- Sexuality

Physical

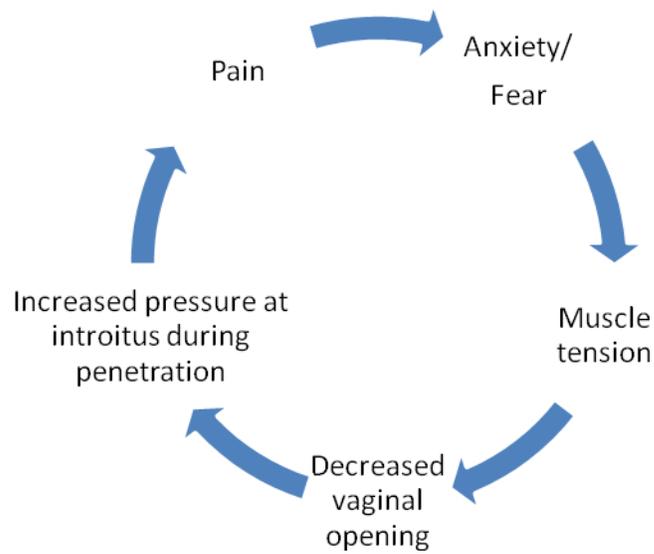
- External examination
 - o Tissue compliance, protective reactions
- Internal examination
 - o Vaginal
 - Tone, elasticity, restriction at entrance
 - Contractility, post-contractile relaxation
 - Pain (site, type, intensity, pattern)
 - Cervix
 - o Anal
 - Tone, contractility, post-contractile relaxation
 - Coccyx

Notes:

2. PROBLEM LIST:

Determined according to evaluation findings.

Typically, a pain cycle has been established and is self-perpetuated:



Notes:

3. GOALS OF TREATMENT

Determined according to problem list. Typically:

- To improve sexual function
- To decrease pain
- To decrease fear and anxiety
- To decrease muscle tension
- To improve active relaxation and proprioception
- To increase diameter of comfortable vaginal opening
- To desensitize vaginal vestibule

Notes:

4. TREATMENT PLAN

Use a combination of following modalities:

- A. Education
- B. Exercises
- C. Manual techniques
- D. Biofeedback
- E. Electrical stimulation
- F. Insertion techniques

- A. EDUCATION
 - Dedramatization
 - Role of pelvic floor musculature in pain cycle
 - Functional applications

- B. EXERCISES
 - Identification
 - Control, relaxation
 - Stretches, insertion techniques

- C. MANUAL TECHNIQUES
 - Desensitization
 - Stretch
 - Myofascial release
 - Trigger point pressures

- D. BIOFEEDBACK
 - Identification
 - Control, relaxation

- E. ELECTRICAL STIMULATION
 - Identification
 - Desensitization

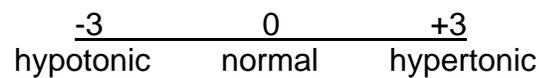
- F. INSERTION TECHNIQUES
 - Exposure
 - Accommodation

Notes:

MUSCLE TONE

- Natural resting tension within a muscle
- Compliance on palpatory compression
- Resistance to passive stretch or distension
- State of readiness for physical activity
- Related to the static role of the pelvic floor
- Influenced by state of activation

TONE SCALE (C.Brown, M-J.Lord): Resistance to passive stretch or distension



References:

Basson R: Summary of the recommendations on sexual dysfunctions in women. *J Sex Med.* 2004 Jul;1(1):24-34.

Bergeron S et al: A randomized comparison of group cognitive--behavioral therapy, surface electromyographic biofeedback, and vestibulectomy in the treatment of dyspareunia resulting from vulvar vestibulitis. *Pain.* 2001 Apr;91(3):297-306.

Bergeron S et al: Surgical and Behavioral Treatments for Vestibulodynia: Two-and-One-Half-Year Follow-up and Predictors of Outcome. *Obstetrics & Gynecology*: January 2008 - Volume 111 - Issue 1 - pp 159-166.

Bergeron, S., Brown, C., Lord, M. J., Oala, M., Binik, Y. M., & Khalifé, S. (2002). Physical therapy for vulvar vestibulitis syndrome : A retrospective study. *Journal of Sex & Marital Therapy*, 28, 183-192.

Bergeron, S., Khalifé, S., Glazer, H. I., & Binik, Y. M. (2008). Surgical and behavioral treatments for vestibulodynia: 2.5-year follow-up and predictors of outcome. *Obstetrics & Gynecology*, 111, 159-166.

Bergeron, S., Morin, M., & Lord, M.-J. (in press). Integrating pelvic floor rehabilitation and cognitive-behavioural therapy for sexual pain: What have we learned and where do we go from here? *Sexual and Relationship Therapy*.

Carrière, B., Markel Feldt, C : *The Pelvic Floor*, Thieme, New York, 2006.
Friedrich, E. G. (1987). Vulvar vestibulitis syndrome. *Journal of Reproductive Medicine*, 32, 110–114.

Goldstein, A. T., Marinoff, S. C., & Haefner, H. K. (2005). Vulvodynia: Strategies for treatment. *Clinical Obstetrics and Gynecology*, 48, 769-785.

Graziottin A: Etiology and diagnosis of coital pain. *J Endocrinol Invest.* 2003;26(3 Suppl):115-21. Review.

Graziottin A: Vulvar vestibulitis syndrome: a clinical approach. *J Sex Marital Ther.* 2004 May-Jun;30(3):125-39. Review.

Griffith WF: Vaginal speculum lubrication and its effects on cervical cytology and microbiology *Contraception* 72 (2005) 60– 64.

Harlow et al (2001). *AmJObGyn* 186 (3), p.547-550.

Hathaway JK: Is Liquid-Based Pap Testing Affected by Water-Based Lubricant? *Obstet Gynecol* 2006;107:66–70.

Heafner, H. K. et al. (2005). The vulvodynia guideline. *Journal of Lower Genital Tract Disease*, 9, 40-51.

Kozakis L: Plastic specula: can we ease the passage? *Sex. Transm. Inf.* 2006;82;263-264.

Landry, T. & Bergeron, S. (2009). How young does vulvo-vaginal pain begin? Prevalence and characteristics of dyspareunia in adolescents. *Journal of Sexual Medicine*, 6, 927-35.

Laumann et al (1999). *JAMA* 281(6),p 537-544.

Moyal-Barracco M: 2003 ISSVD terminology and classification of vulvodynia: a historical perspective. *J Reprod Med.* 2004 Oct;49(10):772-7.

Pukall CF et al : Vestibular tactile and pain thresholds in women with vulvar vestibulitis syndrome. *Pain.* 2002 Mar;96(1-2):163-75.

Reissing ED et Al: Pelvic floor muscle functioning in women with vulvar vestibulitis syndrome. *J Psychosom Obstet Gynaecol.* 2005 Jun;26(2):107-13.

Stenchever MA: *Comprehensive Gynecology*,, Mosby, 1997.

Strauhal MJ et al: Vulvar Pain: A Comprehensive Review. *Jrnl of Women's health PT* 31:3 Winter 2007.

Tavernier LA: Water versus gel lubricant for cervical cytology specimens. *The Journal of Family Practice* 2003 52;9;701-704.

Ter Kuile, et al: Therapist-Aided Exposure for Women With Lifelong Vaginismus: A Replicated Single-Case Design. *Jrnl of Consulting and Clin. Psych*, 2009, Vol 77, Number 1.

Van Lankveld, et al: Cognitive-Behavioral Therapy for Women With Lifelong Vaginismus: A Randomized Waiting-List Controlled Trial of Efficacy, *Jrnl of Consulting and Clin Psych*, 2006, Vol 74, Number1.

Vulvodynia. ACOG Committee Opinion No. 345. *Obstet Gynecol* 2006;108:1049–52.

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