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Vulvodynia

Recommendations for the Study of Vulvar Pain in Women, Part 1: Review of Assessment Tools.
Rosen NO, Bergeron S, Pukall CF.
J Sex Med. 2019 Dec 4. pii: S1743-6095(19)31519-X. doi: 10.1016/j.jsxm.2019.10.023.
https://www.ncbi.nlm.nih.gov/pubmed/31812684

INTRODUCTION: The etiology and consequences of chronic vulvar pain are multidimensional, resulting in highly variable clinical presentations and no established treatment algorithm. Inconsistent use of measurement tools across studies is a significant barrier to drawing conclusions regarding etiology and treatment. In a companion paper, we review additional methodological challenges to the study of chronic vulvar pain and potential solutions. **AIM:** To review and recommend assessment and measurement tools for vulvar pain and associated key outcomes. **METHODS:** The authors reviewed the scientific evidence related to measurement of vulvar pain and made decisions regarding recommendations via discussion and consensus. **MAIN OUTCOME MEASURE:** We assessed measurement tools for vulvar pain and related outcomes and considered advantages and disadvantages of their use. **RESULTS:** Empirically validated measurement tools are available and should be used uniformly across studies to support comparisons and pooling of results. There is, at times, a trade-off between advantages and disadvantages when selecting a particular tool, and researchers should be guided by their specific research aims, feasibility, and potential to gain further knowledge in the field. Researchers should incorporate a biopsychosocial assessment of vulvar pain and its consequences. **CLINICAL IMPLICATIONS:** This review provides a comprehensive list of measurement tool recommendations for use in clinical research, and in some cases, clinical practice. **STRENGTHS & LIMITATIONS:** This expert review can guide study design and decision-making for those researching vulvar pain and its consequences. The review content and recommendations are based on expert knowledge of the literature rather than a formal systematic review. **CONCLUSION:** A thorough consideration of vulvar pain assessment tools is essential for continued progress toward identifying factors involved in the development and maintenance of vulvar pain and developing empirically supported treatments. Rosen NO, Bergeron S, Pukall CF. Recommendations for the Study of Vulvar Pain in Women, Part 1: Review of Assessment Tools.

Extracorporeal shock wave therapy for treatment of vulvodynia: a prospective, randomized, double-blind, placebo-controlled study.

Hurt K, Zahalka F, Halaska M, Rakovicova I, Krajcova A.

Eur J Phys Rehabil Med. 2020 Jan 14. doi: 10.23736/S1973-9087.20.05903-1.
https://www.ncbi.nlm.nih.gov/pubmed/31939265

BACKGROUND: Currently, there are no effective therapy strategies for idiopathic, non-organic vulvodynia in women. ESWT (extracorporeal shock wave therapy) is a nonsurgical/noninvasive technique widely used to treat musculoskeletal diseases, muscle spasticity and hypertonia, renal and biliary calculi and urological disorders. **AIM:** We examined the effects of ESWT on vulvodynia in women. **STUDY DESIGN:** A prospective, randomized, double-blind, placebo-controlled study was conducted between 2015 and 2018 following a feasibility study. **METHODS:** The study included 62 women with vulvodynia for at least 3 months. The women were randomly assigned to either a treatment group (n=31) or a placebo group (n=31). The patients in the treatment group received perineally applied ESWT weekly (3000 pulses each for four consecutive weeks). The energy flux density was 0.25mJ/mm2, frequency 4 Hz, focus zone 0-30 mm, therapeutic efficacy 0-90mm, stand-off II. The device used was a standard electromagnetic shock wave unit with a focused shock wave handpiece. The position of the shock wave transducer was changed six times after every 500 pulses. Patients in the placebo group underwent the same treatment procedure, but the handpiece was provided with a placebo stand- off that disabled energy transmission. Subjective pain was self-evaluated by each patient using two tools before and after treatment: a 10 cm linear visual analogue scale (VAS, 0-10) and a cotton-swab test (CST, Goetsch scale 0-4). Follow-ups were done 1, 4, and 12 weeks post- ESWT. **RESULTS:** In all, 61 women completed the study. We tested for differences in the VAS and CST within and between the treatment and placebo groups. The testing was between before treatment and particular follow-up. We found significant changes in the treatment group. Reductions in VAS ($p<0.01$) and CST ($p<0.01$) were observed at all three follow-ups. At all assessments, pain reduction was always >30%. In the placebo group there were no statistically significant changes between before and after treatment. There were no differences between the treatment and placebo groups before treatment but statistically significant differences at all three follow-ups (VAS $p<0.01$); CST $p<0.01$). **CONCLUSIONS:** ESWT seems to reduce pain perception in our treatment group. Thus, we are encouraged to explore this technique further. The method is easily replicable, inexpensive, and without known side effects.

[THE NEW CONSENSUS TERMINOLOGY OF CHRONIC VULVAR PAIN AND VULVODYNIA].

[Article in Hebrew]

Bornstein S, Bornstein J.

Harefuah. 2019 Dec;158(12):812-816.
https://www.ncbi.nlm.nih.gov/pubmed/31823537

We review the process of establishing the new terminology of persistent vulvar pain and vulvodynia. Three international scientific societies: the International Society for the Study of Vulvovaginal Disease - ISSVD, the International Society for The Study of Women's Sexual Health - ISSWSH, and the International Pelvic Pain Society - IPPS, prepared a consensus terminology of vulvar pain and vulvodynia. This terminology includes the definition of vulvodynia, descriptors of the clinical presentation of vulvodynia, and evidence-based data on the possible causes of vulvodynia. The controversy behind the introduction of the possible causes of vulvodynia, a condition which was considered an idiopathic condition, is revealed. The inclusion of these possible causes has changed the paradigm enabling tailoring treatment.

Vulvodynia
Robyn B. Faye , Emanuele Piraccini
In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan–.
2020 Jan 1.
https://pubmed.ncbi.nlm.nih.gov/28613543/?from_single_result=Vulvodynia+Robyn+B.+Faye+%2C+Emanuele+Piraccini&expanded_search_query=Vulvodynia+Robyn+B.+Faye+%2C+Emanuele+Piraccini

The current International Society for the Study of Vulvovaginal Disease (ISSVD) definition of vulvodynia is a vulvar pain of at least three months' duration, without a clear, identifiable cause, which may have potential associated factors. It is a diagnosis of exclusion and is an idiopathic pain disorder.

Provoked Vestibulodynia

Patient-Centered Outcomes After Modified Vestibulectomy.
Das D, Davidson ERW, Walters M, Farrell RM, Ferrando CA.
Obstet Gynecol. 2020 Jan;135(1):113-121. doi: 10.1097/AOG.0000000000003596.
https://www.ncbi.nlm.nih.gov/pubmed/31809431

OBJECTIVE: To describe patient outcomes after modified vestibulectomy for vulvodynia. **METHODS:** This is a mixed-methods study of patients who had undergone modified vestibulectomy for vulvodynia at a tertiary care hospital from 2009 through 2016. Demographics, preoperative and postoperative examinations, symptoms, and treatments were obtained through retrospective review. Prospective semistructured interviews were conducted from 2018 through 2019 to address patient-reported changes in pain and sexual function. Qualitative analysis was performed using a grounded theory approach. **RESULTS:** Twenty-two patients underwent modified vestibulectomy from 2009 through 2016. Age ranged from 22 to 65 years and mean body mass index was 24.3±5.4. The majority of patients were premenopausal (57%), sexually active (68%), and partnered (76%). Postoperatively, data on pain improvement were retrieved on 18 patients, of which 17 (94%) reported improvement. Patients used pelvic floor physical therapy, medications, and lubricants both preoperatively and postoperatively. For the qualitative analysis, thematic saturation was achieved with 14 interviews. Of 14 participants interviewed, 13 (93%) reported improvement with pain after surgery, 11 (79%) reported satisfaction with surgery, 8 (57%) reported satisfaction with sexual function, and 11 (79%) reported recommending the surgery to others. The following lead themes were identified: vulvodynia symptoms significantly affect quality of life; there is difficulty and delay in diagnosis owing to lack of information and awareness among patients and health care providers; and surgical success and satisfaction are influenced by patient perceptions with sexual dysfunction often persisting despite vulvar pain improvement. **CONCLUSION:** Vulvodynia patients report improvement in pain and high overall satisfaction after modified vestibulectomy, but more variable long-term effects on sexual function.

Exploring the Neural Correlates of Touch and Pain in Women With Provoked Vestibulodynia
Katherine S Sutton, Lindsey R Yessick, Conor J Wild, Susan M Chamberlain, Caroline F Pukall
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https://www.ncbi.nlm.nih.gov/pubmed/?term=Exploring+the+Neural+Correlates+of+Touch+and+Pain+in+Women+With+Provoked+Vestibulodynia

Group differences in touch and pain thresholds-and their neural correlates-were studied in women with provoked vestibulodynia (PVD; N = 15), a common subtype of vulvodynia (chronic vulvar pain), and pain-free control women (N = 15). Results from quantitative sensory testing and self-report measures indicated that, as compared with control participants, women with PVD exhibited allodynia (ie, pain in response to a normally nonpainful stimulus) and hyperalgesia (ie, an increased response to a normally painful stimulus) at vulvar and nonvulvar sites. In addition, brain imaging analyses demonstrated reduced difference scores between touch and pain in the S2 area in women with PVD compared with control participants, supporting previous findings of allodynia in women with PVD. There were no significant reductions in difference scores between touch and pain for regions related to cognitive and affective processing of painful stimuli. The results of this study contribute important information to the general pain and vulvodynia literatures in elucidating the specific sensorimotor neural mechanisms that underlie hyperalgesia in a chronic pain population. These results have implications for differentiating neural processing of touch and pain for women with and without PVD. Future research should attempt to examine alterations related to hyperalgesia in commonly comorbid conditions of PVD.

Women's Appraisal of the Management of Vulvodynia by Their General Practitioner: A Qualitative Study
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Fam Pract 2019 Nov 18 DOI: 10.1093/fampra/cmz021
https://pubmed.ncbi.nlm.nih.gov/31074493/?from_single_result=Women%27s+Appraisal+of+the+Management+of+Vulvodynia+by+Their+General+Practitioner%3A+A+Qualitative+Study&expanded_search_query=Women%27s+Appraisal+of+the+Management+of+Vulvodynia+by+Their+General+Practitioner%3A+A+Qualitative+Study

Background: Provoked Vulvodynia (PVD) is the most common cause of vulvar pain. General practitioners (GPs) are insufficiently familiar with it, causing a delay in many women receiving correct diagnosis and treatment. Besides patients factors, this delay can partly be explained by the reluctance of GPs to explore the sexual context of PVD and by their negative emotional reactions such as helplessness and frustration when consulted by patients with medically unexplained symptoms like PVD. **Objective:** To gain insight into how women with PVD perceive and evaluate condition management by their GP, in order to support GPs in the consultation of women with PVD. **Methods:** We performed face-to-face in-depth interviews with women diagnosed with PVD. The interviews were recorded, transcribed verbatim and thematically analysed. The Consolidated Criteria for reporting Qualitative Research (COREQ-criteria) were applied. **Results:** Analysis of the interviews generated four interrelated themes: Doctor-patient relationship, Lack of knowledge, Referral process and Addressing sexual issues. Empathy of the GP, involvement in decision-making and referral were important factors in the appreciation of the consultation for women with PVD who were referred to a specialist. Because women were reluctant to start a discussion about sexuality, they expected a proactive attitude from their GP. The communication with and the competence of the GP ultimately proved more important in the contact than the gender of

the GP. **Conclusion:** Women with PVD prefer a patient-centred approach and want GPs to acknowledge their autonomy and to address sexuality proactively.

Mindfulness and cognitive behavior therapy for provoked vestibulodynia: Mediators of treatment outcome and long-term effects.
Brotto LA, Bergeron S, Zdaniuk B, Basson R.
J Consult Clin Psychol. 2020 Jan;88(1):48-64. doi: 10.1037/ccp0000473.
https://www.ncbi.nlm.nih.gov/pubmed/31841023

OBJECTIVE: Provoked vestibulodynia (PVD) is a chronic vulvo-vaginal pain condition affecting 8% of premenopausal women. Cognitive-behavioral therapy (CBT) is effective in managing pain and associated sexual and psychological symptoms, and a recent study found group mindfulness-based cognitive therapy (MBCT) to be equivalent. Our goal was to examine the long-term outcomes of these treatments and to explore mediators of change. **METHOD:** Participants were 130 women diagnosed with PVD who had participated in a clinical trial comparing 8 weeks of group CBT to 8 weeks of group MBCT. Data were collected at pretreatment, posttreatment, and at 6- and 12-month follow-up periods. Outcomes focused on (a) pain with vaginal penetration, (b) pain elicited with a vulvalgesiometer, and (c) sex-related distress. Mediators of interest included pain acceptance (both pain willingness and activities engagement), self-compassion, self-criticism, mindfulness, decentering, and pain catastrophizing. **RESULTS:** All improvements in the 3 outcomes were retained at 12-month follow-up, with no group differences. Pain catastrophizing, decentering, and chronic pain acceptance (both scales) were mediators of improvement common to both MBCT and CBT. Changes in mindfulness, self-criticism, and self-compassion mediated improvements only in the MBCT group. **CONCLUSIONS:** Both MBCT and CBT are effective for improving symptoms in women with PVD when assessed 12 months later. The findings have implications for understanding common and potentially distinct pathways by which CBT and MBCT improve pain and sex-related distress in women with PVD.

Co-morbid Disorders

Prevalence of Depression and Anxiety in Women Newly Diagnosed With Vulvovaginal Atrophy and Dyspareunia
Erick Moyneur, Katherine Dea, Leonard R Derogatis, Francis Vekeman, Alain Y Dury, Fernand Labrie
Menopause Feb 2020
https://pubmed.ncbi.nlm.nih.gov/31688416/?from_single_result=Prevalence+of+Depression+and+Anxiety+in+Women+Newly+Diagnosed+With+Vulvovaginal+Atrophy+and+Dyspareunia&expanded_search_query=Prevalence+of+Depression+and+Anxiety+in+Women+Newly+Diagnosed+With+Vulvovaginal+Atrophy+and+Dyspareunia

Objective: To quantify the association between vulvovaginal atrophy and depression, major depressive disorder, and anxiety. **Methods:** Women with vulvovaginal atrophy from the Truven Health MarketScan Commercial and Medicare Supplemental Databases (01/2010-09/2016) with ≥365 days of continuous insurance coverage before and after the first vulvovaginal atrophy/dyspareunia diagnosis (index date) were selected. Women with vulvovaginal atrophy were matched 1:3 to women without (controls) according to age, calendar year, health plan, and region. The study period spanned from 12 months before to 12 months after index date. The ratios of diagnosed depression, major depressive disorder,

and anxiety among women with vulvovaginal atrophy and the controls were calculated. Logistic regressions adjusting for proxies of menopause were used to compare prevalence. **Results:** In all, 125,889 women with vulvovaginal atrophy and 376,057 controls were included (mean age 60.7 [45-101]). The prevalence of depression, major depressive disorder, and anxiety was higher among women with vulvovaginal atrophy compared with controls (23.9% vs 18.9%, 6.3% vs 4.7%, 16.6% vs 11.3%), with prevalence ratios of 1.26, 1.33, and 1.47, respectively (all $P < 0.0001$). Highest prevalences and differences were observed in younger women. Findings were consistent when analyzing newly diagnosed conditions. When adjusting for proxies of menopause (insomnia, vasomotor symptoms, dysuria, and estrogen therapy), vulvovaginal atrophy remained significant (prevalence odds ratios; depression 1.23, major depressive disorder 1.22, anxiety 1.39; all $P < 0.0001$). **Conclusions:** Vulvovaginal atrophy is associated with a significantly higher prevalence/incidence of depression, major depressive disorder, and anxiety. The higher prevalence/incidence and greater differences in younger women highlight the need for a multidisciplinary approach and early diagnosis/management of vulvovaginal atrophy.

Vaginal Microbiota and Mucosal Immune Markers in Women With Vulvovaginal Discomfort
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Sex Transm Dis 2020 Feb 7 DOI: 10.1097/OLQ.0000000000001143
https://pubmed.ncbi.nlm.nih.gov/32044865/?from_single_result=Vaginal+Microbiota+and+Mucosal+Immune+Markers+in+Women+With+Vulvovaginal+Discomfort&expanded_search_query=Vaginal+Microbiota+and+Mucosal+Immune+Markers+in+Women+With+Vulvovaginal+Discomfort

Background: Up to 30% of women with vaginal symptoms are not assigned a diagnosis after standard diagnostic assessment. **Methods:** We compared premenopausal women with idiopathic vaginitis (IV) or vulvodynia (VVD) to healthy controls. Microbiota were characterized using rRNA sequencing. Cytokines/chemokines (IL-10, IL-1α, IL-1β, IL-6, IL-8, IL-2, IL-18, IL-4, IL-9, and IL-13) were measured in vaginal lavage fluid using the Meso Scale Discovery platform or ELISA (IL-1ra). Immunoglobulins were measured in vaginal lavage fluid using a bead-based immunoassay (Millipore). Cases and controls were compared using Kruskal Wallis, ANOVA and linear regression or (for microbiome composition) the Bray-Curtis dissimilarity statistic. **Results:** We compared 20 women with IV, 30 with VVD and 52 controls. Most (80%) had > 90% 16S rRNA gene sequences from Lactobacillus crispatus, L. jensenii, L. gasseri or L. iners. In analyses adjusted for age and hormonal contraception (HC), Gardnerella vaginalis was less prevalent and abundant in women with VVD (2/30, 7%) vs. controls (16/52, 31%) or IV (5/20, 25%) ($p = 0.030$). Bray-Curtis dissimilarity was not significantly different between IV and controls or VVD. Fungal sequences were only detected in 5 participants: 2 control, 1 IV, 2 VVD. In univariate analysis, cytokines were not associated with diagnosis. Median vaginal concentration of IgE (but not other immunoglobulins) was lower in women with vulvodynia ($p = 0.006$). **Conclusions:** Minimal differences in vaginal microbiota and inflammatory markers between women with IV, VVD or controls suggest no striking association between vaginal bacteria, fungi or inflammation and diagnosis in these women.

Painful interactions: Microbial compounds and visceral pain.
van Thiel IAM, Botschuijver S, de Jonge WJ, Seppen J.
Biochim Biophys Acta Mol Basis Dis. 2020 Jan 1;1866(1):165534. doi: 10.1016/j.bbadis.2019.165534. Epub 2019 Oct 18.
https://www.ncbi.nlm.nih.gov/pubmed/31634534

Visceral pain, characterized by abdominal discomfort, originates from organs in the abdominal cavity and is a characteristic symptom in patients suffering from irritable bowel syndrome, vulvodynia or interstitial cystitis. Most organs in which visceral pain originates are in contact with the external milieu and continuously exposed to microbes. In order to maintain homeostasis and prevent infections, the immune- and nervous system in these organs cooperate to sense and eliminate (harmful) microbes. Recognition of microbial components or products by receptors expressed on cells from the immune and nervous system can activate immune responses but may also cause pain. We review the microbial compounds and their receptors that could be involved in visceral pain development.

Interventional Treatments for Chronic Pelvic Pain Caused by Myometrial Cysts
Omar Viswanath, Ivan Urits
Case Rep Womens Health 2019 Nov 19 eCollection Jan 2020 DOI: 10.1016/j.crwh.2019.e00161
https://pubmed.ncbi.nlm.nih.gov/31867223/?from_single_result=Interventional+Treatments+for+Chronic+Pelvic+Pain+Caused+by+Myometrial+Cysts&expanded_search_query=Interventional+Treatments+for+Chronic+Pelvic+Pain+Caused+by+Myometrial+Cysts

Diagnosing these patients is rather difficult, majority of the patients in the case series shared chronic pelvic pain as a common symptom.•Nerve blocks with image guided fluoroscopy can potentially eliminate the patient's chronic pelvic pain.•Examples include pudendal nerve block, superior and inferior hypogastric plexus block, and ganglion impar block.

Vulvovaginal Atrophy (VVA) in Breast Cancer Survivors (BCS) Is Still an Unmet Medical Need: Results of an Italian Delphi Panel
Nicoletta Biglia, Lino Del Pup, Riccardo Masetti , Paola Villa, Rossella E Nappi
Support Care Cancer 2020 Jan 22 DOI: 10.1007/s00520-019-05272-4
https://pubmed.ncbi.nlm.nih.gov/31970513/?from_single_result=Vulvovaginal+Atrophy+%28VVA%29+in+Breast+Cancer+Survivors+%28BCS%29+Is+Still+an+Unmet+Medical+Need%3A+Results+of+an+Italian+Delphi+Panel&expanded_search_query=Vulvovaginal+Atrophy+%28VVA%29+in+Breast+Cancer+Survivors+%28BCS%29+Is+Still+an+Unmet+Medical+Need%3A+Results+of+an+Italian+Delphi+Panel

Purpose: VVA is a common disease, with approximately 50% of all postmenopausal women having related symptoms. VVA has a significant impact on the personal and sexual lives and on many aspects of women's self-esteem and emotional well-being. It is particularly frequent and severe in patients treated for BC, where it originates significant economic and social costs. Given the lack of published evidence on this subject, a Delphi Panel was carried out to evaluate:The epidemiology of VVA and of its risk-factors/comorbidities in ItalyThe present standard of care and unmet medical needsThe comparison between recent US epidemiological data and the Italian situationThe health resources used in VVA BC The burden of illnessDespite the considerable negative impact on quality of life, a disparity between the high prevalence of this condition and the infrequent clinical diagnosis is documented in medical practice and in surveys. This inaccuracy is thought to be primarily a consequence of patients' unwillingness and/or reluctance to report symptoms in the clinical setting and of health-care professional's difficulty in approaching this sensitive topic during routine consultations.
Methods: A Delphi Panel methodology was used: a first round of written questionnaires, followed by a plenary meeting with a facilitator and by two additional rounds of telephone interviews.

Results: The prevalence of the condition in Italy can be estimated in 115,000 cases out of 380,000 BC survivors. The Panel confirmed that the epidemiological findings of a recent pharmacoeconomic analysis of a US claims database can be applied to Italian patient population. The Panel confirmed also an estimate of 4.25 additional cases/100/yr of UTI (urinary tract infection) in VVA BC patients (vs. a non-VVA-matched population), of 3.68 additional cases of vulvovaginitis, of 6.97 cases of climacteric symptoms, and of 3.64 cases of bone and joint disorders. As far as the resource use is concerned, in the VVA BC populations, 33.4 additional gynecological visits/100/year can be expected, along with 22.8 additional cancer screenings, 7.07 additional outpatient visits and 5.04 screenings for HPV.
Conclusions: Even in Italy, a diagnosis of VVA, especially in a BC population, is associated with a relevant increase in the burden of illness and social costs, compared to a control population matched for age without VVA. This is due essentially to an increase in comorbidities and resource utilization with the consequence that an adequate treatment could reduce the impact of the condition.

The Lady Garden Club: Supporting Women With Vulval Conditions and Their Partners
R Akel, C E Cohen, C Fuller
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https://pubmed.ncbi.nlm.nih.gov/32027415/?from_single_result=The+Lady+Garden+Club%3A+Supporting+Women+With+Vulval+Conditions+and+Their+Partners&expanded_search_query=The+Lady+Garden+Club%3A+Supporting+Women+With+Vulval+Conditions+and+Their+Partners

Background: Vulval conditions have been shown to have a significant impact on patients' quality of life and can affect their relationships. The Lady Garden Club (LGC) is peer support group that was set up by patients with vulval conditions and is supported by the vulval clinic physicians at Chelsea & Westminster Hospital. **Objectives:** Our aim was to assess the efficacy of this peer support group and the physician contribution to it. We also aimed to assess potential unmet needs of partners, which in turn could affect our patients' experience and quality of life. **Methods:** An anonymised online Survey Monkey link was sent to LGC members. Questions included a Dermatology Life Quality Index (DLQI) section.
Results: The response rate was 60% (26). Over half (54%) were members > 2 years. Diagnoses included 85% (22) LS, lichen planus, 8% (2) eczema/psoriasis, warts 8% (2), vulval cancer 4% (1) and vulvodynia 8% (2). All valued a vulval specialist leading the LGC. Women benefitted from: open member questioning (84%), learning from others (81%), self-help tips (81%), more patient information (77%), latest research updates (69%), sharing concerns and fears (65%), sharing personal experiences (62%), peer support network (62%), discussion about sex & relationships (35%). A third used the buddy system by phone, 19% soon after diagnosis. The average DLQI was 6.84 (range 0-25). Half reported depression and 59% anxiety. Two thirds (68%) felt women with other vulval conditions would benefit from the LGC. Over half (54%) felt there was an unmet need for helping partners understand their genital conditions.
Conclusion: The survey concluded that the LGC provides several additional benefits to women with vulval conditions, within a safe forum led by a vulval specialist. It also demonstrated a potential unmet need to support women's partners that can now be addressed.

Pudendal Neuralgia

Comparison of Ultrasound-Guided Transgluteal and Finger-Guided Transvaginal Pudendal Nerve Block Techniques: Which One Is More Effective?

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https://pubmed.ncbi.nlm.nih.gov/31905278/?from_single_result=Comparison+of+Ultrasound-Guided+Transgluteal+and+Finger-Guided+Transvaginal+Pudendal+Nerve+Block+Techniques%3A+Which+One+Is+More+Effective%3F&expanded_search_query=Comparison+of+Ultrasound-Guided+Transgluteal+and+Finger-Guided+Transvaginal+Pudendal+Nerve+Block+Techniques%3A+Which+One+Is+More+Effective%3F

Purpose: Pudendal neuralgia (PN) is a painful and disabling condition, which reduces the quality of life as well. Pudendal nerve infiltrations are essential for the diagnosis and the management of PN. The purpose of this study was to compare the effectiveness of finger-guided transvaginal pudendal nerve infiltration (TV-PNI) technique and the ultrasound-guided transgluteal pudendal nerve infiltration (TG-PNI) technique. **Methods:** Forty patients who underwent PNI for the diagnosis of PN were evaluated. Thirty-five of these 40 patients, who were diagnosed as PN, underwent a total of 70 further unilateral PNI. All the patients underwent PNI for twice after the first diagnostic PNI, 1 week apart. **Results:** In the ultrasound (US)-guided TG-PNI group, the success rate was 68.8% (11 of 16) in both "pain in the sitting position" and "pain in the region from the anus to the clitoris." The success rate of blocks in the US-guided TG-PNI group was 75% (12 of 16) in terms of pain during/after intercourse. In the finger-guided TV-PNI group, the success rate was 84.2% in both "pain in the sitting position" and "pain in the region from the anus to the clitoris." The success rate of blocks in the fingerguided TV-PNI group was 89.5% (17 of 19) in terms of pain during/after intercourse. There was no statistically significant difference in the success rate of the 3 assessed conditions between the 2 groups (P>0.05). **Conclusion:** The TV-PNI may be an alternative to US-guidance technique as a safe, simple, effective approach in pudendal nerve blocks.

A Minimally Invasive, Endoscopic Transgluteal Procedure for Pudendal Nerve and Inferior Cluneal Nerve Neurolysis in Case of Entrapment: 3- And 6-month Results. The ENTRAMI Technique for Neurolysis

Katleen Jottard, Luc Bruyninx, Pierre Bonnet Stefan De Wachter

Int J Colorectal Dis Feb 2020 DOI: 10.1007/s00384-019-03480-2

https://pubmed.ncbi.nlm.nih.gov/31828369/?from_single_result=A+Minimally+Invasive%2C+Endoscopic+Transgluteal+Procedure+for+Pudendal+Nerve+and+Inferior+Cluneal+Nerve+Neurolysis+in+Case+of+Entrapment%3A+3-+And+6-month+Results.+The+ENTRAMI+Technique+for+Neurolysis&expanded_search_query=A+Minimally+Invasive%2C+Endoscopic+Transgluteal+Procedure+for+Pudendal+Nerve+and+Inferior+Cluneal+Nerve+Neurolysis+in+Case+of+Entrapment%3A+3-+And+6-month+Results.+The+ENTRAMI+Technique+for+Neurolysis

Background: Pudendal and cluneal nerve entrapment can cause a neuropathic pain syndrome in the sensitive areas innervated by these nerves. Recently, a new endoscopic minimal invasive approach for pudendal and inferior cluneal nerve neurolysis has been published in a cadaver study. The aim of our study was to describe the feasibility of this new approach and to evaluate the clinical outcome.

Methods: Fifteen patients underwent the ENTRAMI technique. The Numeric Pain Rating Scale (NPRS) and Patient Global Impression of Change (PGIC) were recorded at baseline and at 3 and 6 months after surgery. **Result:** The average duration of intervention (skin to skin) was 139 min (range 50-270 min) for bilateral pudendal neurolysis and/or cluneal neurolysis and 113 min (range 100-130 min) for unilateral pudendal and/or cluneal neurolysis. No perioperative blood loss occurred. At 3 months, 50% of patients declared a more than 30% improvement of their PGIC, increasing to 57% at 6 months; 31% reported more than 90% improvement of PGIC at 6 months. Overall reduction of the average maximal NPRS score was from 9 (range 7-10) to 6 at 3 months (range 0-10; p value < 0.05) and to 5 at 6 months (range 0-10; p value < 0.05). There were no postoperative complications. **Conclusions:** The ENTRAMI technique is feasibly in patients suffering from pudendal and/or cluneal neuralgia and preliminary results are promising.

Estimate of the Proportion of Uncertain Diagnoses of Pudendal Neuralgia in Women With Chronic Pelvic-Perineal Pain: A Systematic Review With a Descriptive Data Synthesis

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Background: There is a gap between pudendal neuralgia (PN) due to pudendal entrapment syndrome and PN without pudendal entrapment syndrome. The latter could have atypical symptoms. **Aim:** Defining a rate of atypical PN from a clinical series of female patients with chronic pelvic-perineal pain. **Methods:** The atypical PN was defined as a pain not meeting clinical criteria for pudendal entrapment syndrome. The effect size was the rate of atypical PN. Such a rate was expected to be found among patients screened for enrollment in clinical series on pudendal neuropathic pain. A systematic search was performed looking for clinical series on PN. Studies must report information on female patients, pelvic-perineal pain, at least a clinical criterion for diagnosing the pudendal neurogenic origin of pain, the proportion of patients with pain not meeting the clinical criterion/a for diagnosing the pudendal entrapment pain. **Results:** From 2637 references, nine studies were included for qualitative analysis. Three of them were not suitable for data synthesis: one assessed the rate of PN after hip arthroscopy; second enrolled miscellaneous patients, a third investigated patients with gynecological diseases. Six studies involved patients with suspicion of pudendal entrapment symptoms (205 patients observed), allowing data synthesis. One of these series was judged as being of good quality. The overall rate of atypical PN is 0.013 (95% confidence interval, 0.008-0.021), I^2 0%. Further analysis suggests the risk of bias for all studies. **Conclusions:** Atypical PN in females is low when clinical criteria for pudendal entrapment syndrome are applied.

Pudendal Nerve Block
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Pudendal nerve block (PNB) is the method of choice utilized for diagnosis and management of chronic pelvic pain caused by pudendal neuralgia, commonly due to pudendal nerve entrapment. Additionally, a pudendal nerve block is a widely used regional anesthesia technique performed for gynecology, obstetrics, and anorectal procedures.

Dermatological Conditions

Effect of Rescue Fractional Microablative CO2 Laser on Symptoms and Sexual Dysfunction in Women Affected by Vulvar Lichen Sclerosus Resistant to Long-Term Use of Topic Corticosteroid: A Prospective Longitudinal Study
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Objective: The objective of this study was to evaluate the efficacy of rescue fractional microablative CO2 laser treatment in women with severe symptoms and sexual dysfunction related to lichen sclerosus not responsive to long-term ultra-potent topical corticosteroid treatment. **Methods:** Consecutive eligible women with lichen sclerosus referred to our unit who received fractional microablative CO2 laser treatment after failure of ultra-potent topical corticosteroid treatment were enrolled in the study. The diagnosis was confirmed by histological assessment in all cases. Patients underwent two cycles of CO2 laser every 30 to 40 days. The severity of lichen sclerosus-related symptoms, sexual function, and procedure discomfort were evaluated with a visual analog scale in the same individual at baseline, after completion of each treatment cycle. Follow-up visits were scheduled during each treatment cycle and at least 1 month after completion of the treatment. The Friedman ANOVA test was used to evaluate differences in the visual analog scale scores of each symptom during treatment. **Results:** A total of 100 patients with vulvar lichen sclerosus were screened, 40 of whom fulfilled the eligibility criteria. We found a significant improvement in vulvar itching (χ [2] = 31,182, $P < 0.001$), vulvar dryness (χ [2] = 40,364, $P < 0.001$), superficial dyspareunia (χ [2] = 37,488, $P < 0.001$), and sensitivity during intercourse (χ [2] = 22,143, $P < 0.001$) after two CO2 laser cycles. Pain related to probe movement and laser application was low and did not change significantly consequent to treatment. No systemic or local adverse effects occurred during or after laser treatment. **Conclusion:** Fractional microablative CO2 laser

treatment is safe and might represent an effective rescue procedure for patients suffering from lichen sclerosus who fail to respond to long-term ultra-potent topical corticosteroid treatment. These preliminary findings require further study with adequately powered randomized controlled trials.

[Focused Ultrasound Therapy for Reducing Recurrence of Vulvar Lichen Simplex Chronicus in Rats: Efficacy and Mechanism]

[Article in Chinese]

Yao Liu, Yijin Fan, Chengzhi Li

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Objective: To explore the changes of collagen fibrosis in the vulva skin of SD rats with lichen simplex chronicus (LSC) after focused ultrasound therapy and explore the mechanism by which focused ultrasound reduces the recurrence of vulvar LSC. **Methods:** Fifty female SD rat models of vulvar LSC were established and randomly divided into the treatment group and the control group (n=25) for treatment with focused ultrasound and sham treatment, respectively. Before and after the treatment, vulvar skin tissues were sampled to observe the pathological changes with HE staining and assess the density of collagen fibers using Masson staining. The ultrastructure of the collagen fibers in the superficial dermis was observed using transmission electron microscopy. The expressions of notch1 and c-fos in the vulvar tissue were detected by immunohistochemistry and Western blotting. **Results:** After 4 weeks of focused ultrasound therapy, 16% (4/25) of the rats in the treatment group showed lesion progression to LSIL, 4% (1/25) still had LSC, and 80% (20/25) showed normal vulvar skin. In the control group, progression to LSIL occurred in 19 (76%) rats, 3 (12%) rats still showed LSC, and only 3 (12%) had normal vulvar skin. The difference in the cure rate differed significantly between the two groups (P < 0.05). The density of collagen fibers in the superficial dermis and the expressions of notch1 and c-fos in the vulvar skin were significantly lower in the treatment group than in the control group (P < 0.05). **Conclusions:** Focused ultrasound therapy can inhibit superficial collagen fibrosis of the dermis by lowering the expressions of notch1 and c-fos in the vulvar skin to reduce the recurrence of vulvar LSC in rats.

The Usefulness of High-Frequency Ultrasonography in the Evaluation of Vulvar Dermatoses in Postmenopausal Women - A Preliminary Report

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Introduction: The vulva is an external female genital organ with complex anatomy and histology. In postmenopausal women, this region is at particular risk of different types of conditions known as dermatoses. **Materials and methods:** We assessed benign vulvar skin lesions using high-frequency 48

MHz ultrasound transducer (DermaView) prior to biopsy or excision. We compared ultrasonographic images with histology. **Results:** We assessed benign vulvar lesions such as folliculitis, condylomata acuminatum, lichen sclerosus and vulvar intraepithelial neoplasia. We presented typical high-frequency images of these pathologies and compared them with histological images. **Conclusion:** Our preliminary study confirms that high-frequency ultrasonography is a useful tool in the assessment of vulvar pathologies, especially before surgical excision. A precise visualization of certain pathologies like folliculitis, lichen sclerosus, condylomata and vulvar intraepithelial neoplasia is possible.

Lichen Sclerosus in Prepubertal Girls: An Uncommon but Treatable Cause of Lower Urinary Tract Symptoms

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Lichen sclerosus (LS) is a chronic inflammatory dermatosis commonly visualized in the anogenital region with porcelain-white atrophic patches that extend to the perianal region in a figure-of-eight configuration. While LS is known to increase lower urinary tract symptoms and incontinence in postmenopausal women, the age distribution is bimodal and literature on the LS impact in prepubertal girls remains limited. There is an association with autoimmune conditions and the pathogenesis is thought to be autoimmune with an underlying genetic predisposition. Lack of familiarity among pediatric urology providers may lead to a significant diagnostic and treatment delay, resulting irreversible genital skin changes.

Vulvar Lichen Sclerosus: Current Perspectives

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Vulvar lichen sclerosus (LS) is a chronic, inflammatory dermatosis that may lead to scarring of the vulva and sexual dysfunction. LS affects women of all ages and often goes unrecognized and underreported. Uncertainty continues to exist around its pathogenesis, histologic diagnosis, and treatment. However, there have been great advances in our understanding of autoimmunogenic targets in disease formation and progression. In addition, there has been recent investigation of potential non-steroid-based treatments, including platelet-rich plasma therapy and energy-based modalities such as the fractional CO_2 laser, photodynamic therapy, and high intensity focused ultrasound. Refinement of surgical techniques for restoring vulvar anatomy and treating clitoral phimosis, introital stenosis, and vulvar granuloma fissuratum is leading to improved patient outcomes. This review summarizes current perspectives on the pathogenesis, symptomatology, diagnosis, and treatment for vulvar lichen sclerosus.