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Vulvodynia

Image-based documentation of vulvodynia pain location
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Pain Manag. 2022 May;12(4):417-424. doi: 10.2217/pmt-2021-0110. Epub 2022 Jan 21.
https://pubmed.ncbi.nlm.nih.gov/35060761/

Aims: Better documentation of vulvar pain is needed. We examined pain locations marked on general body and genital specific outlines among women with vulvodynia. **Methods:** 62 women (mean age 32.1 ± 9.5 years) with vulvodynia marked their pain on a digital genital specific outline (22 segments) and 59 of those women also marked their pain on a digital general body outline (48 segments). We used ImageJ software to determine body surface area (BSA) for each outline. **Results:** On the general body outline, 24/48 segments were marked; 22/22 segments were marked on the genital specific outline. There was a moderate correlation (r = 0.43; p = 0.001) between the BSA marked on the general body outline and the BSA marked on the genital area outline. **Conclusions:** Findings support concurrent validity of the BSA as a measure of pain location using either outline.

Clitoral blood flow using color Doppler ultrasonography in women with and without provoked vestibulodynia
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https://pubmed.ncbi.nlm.nih.gov/35298682/

Introduction and hypothesis: To compare blood flow of the dorsal clitoral artery in women diagnosed with provoked vestibulodynia (PVD) and in healthy controls using color Doppler ultrasonography. We hypothesized that women with PVD would have a restricted blood flow compared to controls.
Methods: This cross-sectional study evaluated the function of the dorsal clitoral artery through the spectral wave analysis of color Doppler ultrasonography (US) in 20 women diagnosed with PVD according to Friedrich's criteria and 21 healthy controls. Participants were evaluated during their follicular phase and were asked to abstain from sexual activities 24 ho prior the examination.

Assessment was performed by an assessor blinded to participant diagnosis, in the morning after a 10-min rest period in a supine lying position in a room with temperature set at 22 °C. Measurements of the peak systolic velocity (PSV), time-averaged maximum velocity (TAMX), end-diastolic velocity (EDV), pulsatility (PI) and resistance index (RI) were performed at rest considering the mean value of three consecutive waveforms. **Results:** Women with PVD and healthy controls did not present any statistically different baseline characteristics. Participants with PVD presented higher values of Doppler-US PSV, TAMX, EDV and RI compared to controls ($p \leq 0.05$), which are suggestive of a decrease in blood flow. However, non-significant difference was found regarding PI values between the two groups ($p > 0.05$). **Conclusion:** Our findings revealed decreased peripheral tissue perfusion in women with PVD compared to healthy controls using color Doppler US, based on the alteration of four of the five assessed data of US parameters.

Vulvodynia Is Not Associated with Concurrent Candidal Vaginitis

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https://pubmed.ncbi.nlm.nih.gov/35262050/

Objective: The study purpose was to determine the prevalence of candida-positive vulvovaginal genital cultures among women with vulvodynia. ***Methods:*** This study was a retrospective analysis of data collected from 2017 to 2020. Eligible patients receiving care from an academic women's health practice in central Texas that employed value-based care pathways and who had a genital culture diagnostic test collected were included. Data were extracted from the electronic health record. Descriptive statistics, *t*-tests, and Fisher's exact test were used to complete the data analysis. ***Results:*** A total of 242 women met inclusion criteria and were included in the study. Of these, 64 (26.4%) had been diagnosed with vulvodynia and 178 (73.6%) had not. Of the 242 women, nearly one-third had confirmed yeast infections (29%) and 27 women (11%) met pathway criteria for polymerase chain reaction testing. There was no difference in the number of women with confirmed yeast infections during the study period among patients with or without a diagnosis of vulvodynia (75% vs. 70%, $p = 0.718$). Notably, among participants with vulvodynia, body mass index (BMI) was lower, and anxiety was more likely ($t = 2.65$, $df = 120$, $p = 0.009$; 78% vs. 55%, $p = 0.002$). ***Conclusions:*** The findings in this study showed no association between vulvodynia and yeast infection, a divergence from prior studies. In addition, vulvodynia was associated with low BMI and anxiety. Further research is needed to better understand the association between vulvovaginal candida infections and vulvodynia. Including women within and across more diverse races and ethnicities would improve generalizability.

An Investigation of Descending Pain Modulation in Women With Provoked Vestibulodynia (PVD): Alterations of Spinal Cord and Brainstem Connectivity

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The most common subtype of vulvodynia (idiopathic chronic vulvar pain) is provoked vestibulodynia (PVD). Previous imaging studies have shown that women with vulvodynia exhibit increased neural activity in pain-related brain regions (e.g., the secondary somatosensory cortex, insula, dorsal midcingulate, posterior cingulate, and thalamus). However, despite the recognized role of the spinal

cord/brainstem in pain modulation, no previous neuroimaging studies of vulvodynia have examined the spinal cord/brainstem. Sixteen women with PVD and sixteen matched Control women underwent a spinal cord/brainstem functional magnetic resonance imaging (fMRI) session consisting of five runs with no painful thermal stimuli (No Pain), interleaved randomly with five runs with calibrated, moderately painful heat stimulation (Pain). Functional connectivity was also assessed in periods before, during, and after, pain stimulation to investigate dynamic variations in pain processing throughout the stimulation paradigm. Functional connectivity in the brainstem and spinal cord for each group was examined using structural equation modeling (SEM) for both Pain and No Pain conditions. Significant connectivity differences during stimulation were identified between PVD and Control groups within pain modulatory regions. Comparisons of Pain and No Pain conditions identified a larger number of connections in the Control group than in the PVD group, both before and during stimulation. The results suggest that women with PVD exhibit altered pain processing and indicate an insufficient response of the pain modulation system. This study is the first to examine the spinal cord/brainstem functional connectivity in women with PVD, and it demonstrates altered connectivity related to pain modulation in the spinal cord/brainstem.

A Pilot Proteomic Study of Vestibular Fluid From Patients With Vulvodynia
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J Low Genit Tract Dis. 2022 Apr 1;26(2):169-175. doi: 10.1097/LGT.0000000000000666.
https://pubmed.ncbi.nlm.nih.gov/35249975/

Objective: Many women are affected by vulvodynia, but medical therapies to date have proven ineffective. We performed a pilot study using gel-based proteomics to develop a map of proteins present in vaginal/vestibular secretions and identify proteins that could be considered for future evaluation as potential therapeutic targets. **Materials and methods:** We collected vestibular fluid from 4 controls and 4 patients with vulvodynia by placing a cotton swab in the vestibule and extracting the absorbed proteins. The proteins underwent 2-dimensional difference gel electrophoresis and mass spectrometry to develop a protein map. Immunohistochemistry was used to validate proteomic findings. **Results:** A map was constructed of 32 of the more abundant proteins in vestibular fluid and their levels compared in control subjects and vulvodynia patients. Among these were annexin A1, interleukin 1 receptor antagonist, protein S100 A9, and a number of antiproteases and proteases. Many of these proteins differed by at least 50% between groups, but only annexin A1, one of the protease inhibitors, and immunoglobulin G κ chain were significantly different. The results with annexin A1 were validated by similar findings with immunohistochemistry. **Conclusions:** The findings of this pilot study demonstrate a set of vestibule mucosa proteins that differ significantly-either increasing or decreasing-in vulvodynia patients compared with controls, and several others that exhibited greater than 1.5-fold change but did not reach statistical significance. This study constitutes a proof-of-principle that an open, unbiased proteomic approach can identify molecular participants in vulvodynia, some of which had not been identified to date by hypothesis-driven studies.

Treatment of Provoked Vulvodynia: A Systematic Review
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https://pubmed.ncbi.nlm.nih.gov/35331660/

Background: Treatment recommendations for provoked vulvodynia (PVD) are based on clinical experiences and there is a need for systematically summarizing the controlled trials in this field. **Aim:** To provide an overview of randomized controlled trials and non-randomized studies of intervention for PVD, and to assess the certainty of the scientific evidence, in order to advance treatment guidelines. **Data sources:** The search was conducted in CINAHL (EBSCO), Cochrane Library, Embase (Embase.com), Ovid MEDLINE, PsycINFO (EBSCO) and Scopus. Databases were searched from January 1, 1990 to January 29, 2021. **Study eligibility criteria:** Population: Premenopausal women with PVD. **Interventions:** Pharmacological, surgical, psychosocial and physiotherapy, either alone or as combined/team-based interventions. **Control:** No treatment, waiting-list, placebo or other defined treatment. **Outcomes:** Pain during intercourse, pain upon pressure or touch of the vaginal opening, sexual function/satisfaction, quality of life, psychological distress, adverse events and complications. **Study design:** Randomized controlled trials and non-randomized studies of interventions with a control group. **Study appraisal and synthesis methods:** 2 reviewers independently screened citations for eligibility and assessed relevant studies for risk of bias using established tools. The results from each intervention were summarized. Studies were synthesized using a narrative approach, as meta-analyses were not considered appropriate. For each outcome, we assessed the certainty of evidence using grading of recommendations assessment, development, and evaluation (GRADE). **Results:** Most results of the evaluated studies in this systematic review were found to have very low certainty of evidence, which means that we are unable to draw any conclusions about effects of the interventions. Multimodal physiotherapy compared with lidocaine treatment was the only intervention with some evidential support (low certainty of evidence for significant treatment effects favoring physiotherapy). It was not possible to perform meta-analyses due to a heterogeneity in interventions and comparisons. In addition, there was a heterogeneity in outcome measures, which underlines the need to establish joint core outcome sets. **Clinical implications:** Our result underscores the need of stringent trials and defined core outcome sets for PVD. **Strength and limitations:** Standard procedures for systematic reviews and the Population Intervention Comparison Outcome model for clinical questions were used. The strict eligibility criteria resulted in limited number of studies which might have resulted in a loss of important information. **Conclusion:** This systematic review underlines the need for more methodologically stringent trials on interventions for PVD, particularly for multimodal treatments approaches. For future research, there is a demand for joint core outcome sets.

Feasibility and acceptability of somatocognitive therapy in the management of women with provoked localized vestibulodynia-ProLoVe feasibility study

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https://pubmed.ncbi.nlm.nih.gov/35321744/

Background: Provoked vestibulodynia (PVD) is a prevalent chronic pain condition especially among young women. Pain is localized to the vulvar vestibule and is provoked by touch or pressure, such as penetrative intercourse. PVD can have profound consequences, adversely affecting a woman's sexual life, relation to her partner, and her psychological health. There is an urgent need for well-designed randomized clinical trials (RCTs) to identify the most effective interventions for this neglected women's health condition. **Aims:** The primary aim of this study is to assess the feasibility of undertaking a full-scale RCT of somatocognitive therapy (SCT), a multimodal physiotherapy intervention, for women with PVD. The secondary aim is to evaluate the implementation and acceptability of SCT and its potential treatment effectiveness in PVD. In the full-scale RCT, SCT will be compared to standard PVD treatment.

Methods: A multimethod feasibility study with a single-arm before-after trial and qualitative interviews. Ten women with PVD, aged 18-33 were recruited from the Vulva Clinic at Oslo University Hospital. The intervention took place at Oslo Metropolitan University. Participants were assessed at baseline, post-treatment, and the 8-month follow-up with the tampon test and self-report questionnaires. The main feasibility outcomes were evaluation of recruitment rate, adherence to assessment tools, and follow-up rate. The participants' experiences with the primary outcome and the intervention were explored with semi-structured interviews. **Results:** Ten out of 18 eligible patients were recruited over 11 weeks. None were lost to follow-up. Adherence to self-report questionnaires was excellent. Adherence to tampon tests and to the reporting of treatments was good, whereas adherence to the 14-day diary was poor. No adverse events were reported. The tampon test was suboptimal as a primary outcome. SCT was found to be an acceptable treatment, based on Global Perceived Effect scores and the participants' experiences. **Conclusion:** The findings suggest that it is feasible to deliver a full-scale RCT of the SCT intervention for women with PVD. Some changes are suggested to optimize the protocol, such as increasing recruitment sites, change of primary outcome measures, and adding a booster session.

Pain Characteristics, Fear-avoidance Variables, and Pelvic Floor Function as Predictors of Treatment Response to Physical Therapy in Women With Provoked Vestibulodynia

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Objective: The aim was to investigate whether pretreatment pain characteristics, psychological variables, and pelvic floor muscle (PFM) function predict the response to physical therapy (PT) in women with provoked vestibulodynia (PVD). **Materials and methods:** One hundred-five women diagnosed with PVD underwent 10 weekly sessions of individual PT comprising education, PFM exercises with biofeedback, manual therapy, and dilators. Treatment outcomes were evaluated at pretreatment, post-treatment, and 6-month follow-up and included pain intensity (numerical rating scale 0 to 10) and sexual function (Female Sexual Function Scale). Multilevel analyses were used to examine the potential predictors of response over time including pain characteristics (PVD subtype, pain duration), psychological variables (fear of pain, pain catastrophizing), and PFM function assessed with a dynamometric speculum (tone, flexibility, and strength). **Results:** PVD subtype and PFM tone were significant predictors of greater treatment response for pain intensity reduction. Secondary PVD (ie, pain developed after a period of pain-free intercourse) and lower PFM tone at baseline were both associated with greater reduction in pain intensity after PT and at follow-up. Among the psychological variables, fear of pain was the only significant predictor of better treatment response when assessed through improvement in sexual function, where higher fear of pain at baseline was associated with greater improvement after PT. **Discussion:** This study identified PVD secondary subtype, lower PFM tone, and higher fear of pain as significant predictors of better treatment response to PT in women with PVD.

Moderators of the Relationship Between Pain and Pain-Related Sexual Disability in Women with Provoked Vestibulodynia Symptoms

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Background: Previous studies have demonstrated the deleterious effects of pain anxiety (ie, the degree to which one fears pain), stress, and solicitous partner responses (ie, expressions of sympathy and attention to one's partner's pain) on pain and pain-related disability, but little is known about whether these variables moderate the robust pain-pain-related disability relationship in individuals with provoked vestibulodynia (PVD). **Aim:** We investigated whether pain anxiety, stress, and solicitous partner responses moderated the relationship between penetrative pain and pain-related sexual disability in women with PVD symptoms. **Methods:** Participants with PVD symptoms (N = 65, age range = 18-73 years) completed an online survey assessing pain anxiety (Pain Anxiety Symptoms Scale-20), perceived stress (Perceived Stress Scale), solicitous partner responses (WHYMPI Solicitous Responses Scale), penetrative pain (Female Sexual Function Index), and pain-related sexual disability (Pain Disability Index). Moderated regression analyses were performed using pain anxiety, stress, and solicitous partner responses as moderators of the relationship between penetrative pain, and pain-related sexual disability. **Outcomes:** Outcomes in the current study included the moderating effect of pain anxiety, perceived stress, and solicitous partner responses on the relationship between penetrative genital pain and pain-related disability in sexual behavior. **Results:** Higher genital pain from penetrative intercourse and higher pain anxiety significantly predicted higher pain-related sexual disability, but perceived stress was not significantly related to sexual disability. Solicitous partner responses were significantly positively correlated with pain-related sexual disability. None of the moderators significantly moderated the pain-pain-related sexual disability relationship. **Clinical implications:** For women with PVD, pain anxiety and solicitous partner responses to their pain may exacerbate their pain-related sexual disability, signifying that pain anxiety and solicitous partner responses represent important targets of therapeutic intervention for women with PVD. **Strengths and limitations:** The present study extended past research on the relationships between psychological and behavioral factors and pain in women with PVD symptoms by demonstrating the deleterious relationship between pain anxiety, solicitous responses, and pain-related sexual disability. However, the study was correlational in nature, which precludes conclusions about the effect of pain anxiety, and solicitous partner responses on pain-related sexual disability. **Conclusion:** High pain anxiety and frequent solicitous partner responses to an individual's pain predicted higher pain-related sexual disability, suggesting that it may be possible to improve the quality of life of PVD sufferers through interventions that aim to decrease pain anxiety, and solicitous partner responses, in addition to interventions that aim to decrease pain per se.

Persistent Genital Arousal Disorder

Treatments for Persistent Genital Arousal Disorder in Women: A Scoping Review
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https://pubmed.ncbi.nlm.nih.gov/35396171/

Background: Persistent genital arousal disorder (PGAD) is characterized by elevated discomfort associated with persistent genital arousal in the absence of sexual desire. **Aim:** To perform a scoping review of the proposed treatments for PGAD and their efficacy. **Methods:** A scoping review was carried out (PRISMA-Scr) that included articles on PGAD as the main disorder, only in women, which explained, in detail, the treatment and its efficacy, was empirical, was written in English and Spanish. No prior filtering by years was performed. **Outcomes:** Three different effective treatments were found (Physical therapies, pharmacological therapies, and psychotherapeutics in combination with other therapies).

Results: Thirty-eight articles were selected. From physical therapies, treatments using neuromodulation, transcutaneous electrical stimulation, Botox, surgery, electroconvulsive therapy, manual therapy, pelvic floor therapy, dietary changes, and transcranial magnetic stimulation showed effectiveness. Using the pharmacological approach, paroxetine, duloxetine, pramipexole, ropinirole, and clonazepam treatments were effective. Psychotherapy treatments showed effectiveness only in combination with other types of treatments, specifically a combination of cognitive-behavioral strategies with pharmacological treatment. **Clinical implications:** Pharmacological treatment, specifically SSRIs, have proven to be the therapy of choice for different subtypes of patients. **Strengths and limitations:** This study analyzed treatment effectiveness with different approaches and took into consideration those articles where psychotherapy was used as a combination treatment with pharmacological and physical therapy. The main limitation is that it was focused exclusively on women, and the results cannot be generalized to include men. **Conclusions:** To date, a combination of pharmacological interventions with physical therapy and, in some occasions, with psychological therapy is main strategy followed to accomplish effective treatment of PGAD.

Genito Pelvic Pain/Penetration Disorder (GPPPD) in Spanish Women-Clinical Approach in Primary Health Care: Review and Meta-Analysis

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Sexuality is a component of great relevance in humans. Sexual disorders are a major public health problem representing a high prevalence in the general population. DSM-5 genito-pelvic pain/penetration disorder (GPPPD) includes dyspareunia and vaginismus (DSM-IV-TR). To assess the importance of research on these disorders in Spain, we evaluated the Spanish scientific publications of primary and community care. The objective was to quantify the magnitude of the publications of GPPPD in Spanish women in primary and community care. For this, we used the method of conducting a systematic review and meta-analysis of studies evaluating GPPPD. As main results, of the 551 items found, we selected 11 studies that met the inclusion criteria. In primary care in Spain, one in nine women has these disorders; the percentage of women with GPPPD in this study (raw data) was 11.23% (95% CI: 0-29%) (vaginismus 5%; penetration pain 8.33%; dyspareunia 16.45%). These percentages can differ of those from other countries, and they are at the top of the data of the European countries (9-11.9%). There is much variability in the studies found in the world with respect to the prevalence of these health problems.

Pudendal Neuralgia

Pudendal Neuromodulation is Feasible and Effective After Pudendal Nerve Entrapment Surgery

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Background: Patients with intractable pain in the pudendal nerve distribution may benefit from pudendal neuromodulation; however, some may have previously undergone pudendal nerve entrapment surgery (PNES), potentially altering nerve anatomy and function. **Aim:** We examined pudendal neuromodulation outcomes in patients with prior PNES. **Methods:** Patients with a history of PNES and quadripolar, tined pudendal lead placement for urogenital pain were reviewed. Symptoms and outcomes were collected from existing medical records. **Outcomes:** Patients with pudendal neuromodulation and prior PNES were compared to patients with no prior PNES who had pudendal lead placement. **Results:** Fifteen patients with a history of 1, 2, or 3 prior PNES (n = 13, 1, and 1, respectively) were evaluated. Most (10; 67%) were female, with bilateral pain (9; 60%), and symptoms of 5-26 years. After trialing the lead, bladder symptoms and pain were improved in 8 of 12 and 9 of 14 patients, respectively, and 80% of patients (12/15) underwent permanent generator implantation. When prior PNES patients were compared to those with no prior PNES (n = 43), gender (67% vs 77% female; P = .50) and age (median 63 vs 58 years; P = .80), were similar; however, BMI differed (mean 24 vs 29; P = .008) and a lower proportion (12/15; 80% vs 42/43; 98%; P = .049) had generator implantation. Importantly, median lead implant time (48 vs 50 minutes; P = .65) did not differ between the 2 groups. **Clinical implications:** Pudendal neuromodulation has the potential to provide pain relief for a very difficult-to-treat population; furthermore, it does not appear that prior PNES surgery made lead placement significantly more challenging. **Strengths & limitations:** Study strengths include being a tertiary referral center for urogenital pain and having a single surgeon perform all procedures in a regimented way. Limitations include the retrospective study design, small sample size and various approaches to PN CONCLUSION: Chronic pudendal neuromodulation can be a viable option even after prior PNES. Kristen M. Meier, Patrick M. Vecellio, Kim A. Killinger, Judith A. Boura, Kenneth M. Peters. Pudendal Neuromodulation is Feasible and Effective After Pudendal Nerve Entrapment Surgery.

The Efficacy of an Ultrasound-Guided Improved Puncture Path Technique of Nerve Block/Pulsed Radiofrequency for Pudendal Neuralgia: A Retrospective Study

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https://pubmed.ncbi.nlm.nih.gov/35448041/

Objectives: To investigate the efficacy and safety of an improved ultrasound-guided pulsed radiofrequency (PRF) and nerve block (NB) for patients with pudendal neuralgia (PN). **Methods:** This retrospective analysis included 88 adults with PN treated in the Pain Department of Southwest Hospital from November 2011 to June 2021, with treatment including NB (*n* = 40) and PRF (*n* = 48). The primary outcome variable was pain severity, measured by a standardized visual analog scale (VAS). VAS values were collected at 1, 3, 7, and 14 days and 1 and 3 months after patients were treated with NB or PRF. **Results:** Compared with patients treated with NB (*n* = 40) and those treated with PRF (*n* = 48), no significant difference in pain reduction was observed in the short term (*p* = 0.739 and 0.981, at 1 and 3 days, respectively); however, in the medium and long term (1 to 3 months), there were statistically significant improvements in the PRF group over the NB group (*p* < 0.001). Moreover, it was noted that the average pain severity of primary PN and PN due to sacral perineurial cyst was significantly reduced with PRF therapy in the medium and long term when compared to other secondary PNs, including surgery, trauma, and diabetes. **Discussion:** The ultrasound-guided, improved, and innovative PRF/NB puncture path technique allows for gentler stimulation and faster identification of the pudendal nerve. The PRF technique may provide better treatments for primary PN and sacral perineurial cyst causing secondary PN in the medium and long term.

Surgical management of pudendal nerve entrapment after sacrospinous ligament fixation
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https://pubmed.ncbi.nlm.nih.gov/35289051/

Objective: To analyse the efficacy of sacrospinous ligament (SSL) suture removal on the reduction of pain symptoms in the case of suspected pudendal nerve entrapment after sacrospinous ligament fixation (SSLF). **Design:** Retrospective cohort study. **Setting:** Tertiary referral centre, the Netherlands. **Population:** A cohort of 21 women having their SSLF sutures removed because of SSLF-related pain symptoms. **Methods:** Clinical record review. **Main outcome measures:** The primary outcome was reduction of pain after SSL suture removal. Secondary outcome measures were time interval between suture placement and suture removal, complete suture removal, adverse events and recurrence of pelvic organ prolapse (POP). **Results:** A total of 21 women underwent SSL suture removal for severe and/or persistent pain, which was confirmed on clinical examination: 95% of the women (20/21) reported pain reduction after suture removal, and 57% reported complete pain relief. The time interval between suture placement and suture removal was at a median of 414 days (range 8-1855 days). Sutures could be completely removed in 86% of cases (18/21). One woman had excessive blood loss (520 ml) without blood transfusion. At 6-8 weeks after surgery, 10% of the women (2/21) had renewed symptomatic POP, stage ≥ 2, for which additional POP surgery was indicated. **Conclusions:** When performed by an experienced clinician, SSL suture removal is feasible and efficacious, with low morbidity. In addition, the risk of recurrent POP in the short term appeared to be low.

Dermatological Conditions

Presenting Symptoms and Diagnosis of Vulvar Lichen Sclerosus in Premenopausal Women: A Cross-Sectional Study
Jill M Krapf, Alyssa B Smith, Sarah T Cigna, Andrew T Goldstein
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https://pubmed.ncbi.nlm.nih.gov/35533256/

Objectives/purpose: Presenting symptoms of vulvar lichen sclerosus (LS) specific to premenopausal women are not well reported in the literature and may differ from those in postmenopausal women. This study aimed to characterize the presentation of vulvar LS among premenopausal women. **Materials and methods:** An observational web-based study was conducted in premenopausal women with biopsy-confirmed vulvar LS between the ages of 18-50 years. Participants completed a 28-question survey evaluating characteristics of symptoms, timing of diagnosis, alternate diagnoses, and presence of concomitant autoimmune conditions. **Results:** Of the 956 responses received, 503 met inclusion criteria of biopsy-confirmed LS and premenopausal status. Average age of symptom onset was 27 years, and average age of diagnosis was 32 years, with a 4-year delay in diagnosis. Symptoms most present were dyspareunia (68%) and tearing with intercourse or vaginal insertion (63%). Symptoms that affect the individual most were also dyspareunia (44%) and tearing with intercourse or vaginal insertion (39%). Symptoms that most frequently prompted patients to seek medical attention were dyspareunia (35%), pruritus (31%) and tearing with intercourse or vaginal insertion (26%). Most common skin changes included hypopigmentation (81%), vulvar fissures (72%), and labial resorption (60%), with fissures affecting the individual the most (48%). Sixty-six percent of the respondents initially received an

alternative diagnosis, most commonly vulvovaginal yeast infection (49%). Hypothyroidism was the most common concurrent autoimmune condition (10%). **Conclusions:** Vulvar LS affects premenopausal women, commonly presenting with dyspareunia and tearing with intercourse. This condition should be considered and evaluated in premenopausal women presenting with vulvar symptoms and sexual pain.

Zoon's vulvitis in association with severe vulvodynia
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https://www.ajog.org/article/S0002-9378(22)00093-X/fulltext

A 22-year-old woman consulted in our dermatology department with a 2-year history of severe vulvodynia and vulvar lesions. On examination, a symmetrical, well-circumscribed plaque occupied the periurethral area and introitus, extending to the labia minora. It had a bright red color and displayed peripheral “cayenne pepperlike” dots (Figure 1). No other mucosal or skin lesion was observed. Furthermore, the patient reported a history of intense vulvodynia concerning its development, which prevented any form of sexual contact and made vulvar examination difficult. A biopsy was performed, showing a lichenoid infiltrate with an abundance of plasma cells occupying the superficial dermis in addition to hematic extravasation, hemosiderin deposits, and polygonal keratinocytes (Figure 2). A diagnosis of Zoon’s vulvitis was made. Plasma cell vulvitis (or Zoon’s vulvitis) is a rare dermatosis affecting women of various ages. Characteristic, bright red plaques may appear on mucosal surfaces of the vulva. Pruritus, dyspareunia, and pain often lead to a decrease in sexual and overall quality of life for these patients. Medium- to high-potency topical corticosteroids are usually used as first-line treatment.

Autologous lipoaspirate as a new treatment of vulvar lichen sclerosus: A review on literature
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Lichen sclerosus (LS) is a chronic inflammatory dermatosis that mostly affects the genital and anal skin areas. Symptoms may vary from pruritis and pain to sexual dysfunction; however, LS can also be asymptomatic. LS occurs at all ages and in both sexes. Approximately 5% of all women affected by vulvar LS will develop vulvar squamous cell carcinoma. Topical treatment is safe but less effective resulting in chronic course in most patients, who suffer from persistent itching and pain. In severe cases of therapy-resistant LS, there is no adequate treatment. Fat grafting is a novel regenerative therapy to reduce dermal fibrosis. The therapeutic effect of adipose tissue grafts for LS is already investigated in various pioneering studies. This review provides an overview of these studies and the putative mechanisms-of-action of fat grafting to treat LS.