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Vulvodynia

Long-lasting effect of penetrating acupuncture among responders: Double-blind RCT of acupuncture for vulvodynia

Judith M Schlaeger, Alana D Steffen, et al.
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https://pubmed.ncbi.nlm.nih.gov/41429681/

Vulvodynia, vulvar pain of unknown etiology, lasting 3 months or longer, affects 7% of American women, and has no consistently effective treatment. We aimed to test the efficacy of acupuncture on vulvar pain and dyspareunia and explore the duration of the effect in a double-blind randomized controlled trial of acupuncture for vulvodynia. 89 women, 19-62 years old (mean 30.2 ± 8.3), 70% White, 20% Hispanic; 91% completed a 13-needle, 10-session standardized acupuncture protocol using double-blind acupuncture needles. Average Pain Intensity of vulvar pain (API, 0-10 scale) and dyspareunia (Female Sexual Function Index) were measured at baseline and after the 10th treatment. Participants with a clinically important post-treatment improvement reported weekly Tampon Test scores (0-10), a measure of provoked vulvar pain, until they returned to baseline. Percentage of responders was similar: acupuncture 58%, placebo 57%; no significant differences were found between acupuncture and placebo groups on API or dyspareunia upon completion of treatments. Responders showed a consistently higher rate of return to baseline pain during the 12-week post-treatment follow-up in the placebo group compared to the acupuncture group (hazard ratio: 2.72, 95% CI: 1.13-6.54). Effects of acupuncture on vulvodynia may have been underestimated because of the strong placebo response from the skin-touch placebo needles. Among responders, the relatively large placebo effect did not persist for as many participants as the therapeutic effect of penetrating acupuncture during the 12-week follow up. Findings indicate investigations into the effects among acupuncture responders and non-responders are warranted. Findings also merit larger, pragmatic trials. PERSPECTIVE: Double-blind RCT of acupuncture for vulvodynia tested vulvar pain and dyspareunia and explored the duration of effect. Penetrating acupuncture and skin-touch placebo needle groups had pain reduction, not significantly different between groups. Pain reduction lasted longer for significantly more responders in the penetrating acupuncture vs. skin-touch placebo groups.

Clinical impacts of botulinum toxin type A injections for provoked vestibulodynia: insights from randomized controlled trials

Zhengyu Gao, Luoman Hu, Chuanjian Yi, Chengfei Gao

Meta-Analysis BMC Womens Health. 2025 Dec 3;25(1):590. doi: 10.1186/s12905-025-04156-6.
https://pubmed.ncbi.nlm.nih.gov/41339844/

Background: Provoked vestibulodynia (PVD) is a chronic vulvar pain condition often associated with pelvic floor muscle hypertonicity. Botulinum neurotoxin type A (BoNT-A), a neuromuscular transmission blocker, has been proposed as a potential treatment to alleviate PVD-related symptoms. However, its clinical efficacy and safety remain uncertain. **Objective**: To systematically assess the efficacy and safety of BoNT-A injections in women with PVD through a meta-analysis of randomized controlled trials (RCTs). Methods: We conducted a systematic review and meta-analysis following PRISMA guidelines. A comprehensive search of MEDLINE, Embase, and Cochrane Library databases was performed up to March 2025 to identify RCTs comparing BoNT-A injections with placebo. Pooled effect sizes were calculated using standardized mean differences (SMDs) or weighted mean differences (WMDs), with 95% confidence intervals (CIs), based on fixed- or random-effects models depending on heterogeneity. **Results**: Four RCTs involving 244 women (BoNT-A: n = 143; placebo: n = 101) were included. BoNT-A treatment did not significantly reduce pain (SMD = - 0.13; 95% CI: - 0.39 to 0.13; p = 0.80), nor did it improve sexual function (WMD = - 0.09 points on the FSFI; 95% CI: - 6.42 to 6.25; p = 0.98) or sexual distress (WMD = 0.15 points on the FSDS; 95% CI: - 9.35 to 9.64; p = 0.98). No serious adverse events were reported, and minor injection-site discomfort was the most common adverse effect. **Conclusions**: While BoNT-A appears to be well tolerated, current evidence from randomized trials does not consistently support its efficacy in relieving pain or improving sexual function in women with PVD. The limited number of studies and variability in intervention protocols warrant cautious interpretation of these findings.

The association between hormonally mediated vestibulodynia and persistent urogenital symptoms: a retrospective chart review

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https://academic.oup.com/jsm/article/23/3/qdag029/8495035?login=false

Recurrent urinary tract infections (rUTIs) are a common and burdensome condition for many women, classically presenting with urogenital symptoms (urinary frequency, urgency, dysuria plus pelvic pain, or discomfort). A significant clinical challenge arises in a subset of patients: persistent symptoms long after a completed course of appropriate and culture-directed antibiotics. These ongoing symptoms are distressing and often misinterpreted as infection, driving a cycle of unnecessary medical visits, and antibiotics despite negative cultures.
This paradox of persistent urogenital symptoms in the absence of active infection suggests our current diagnostic framework may be incomplete. One hypothesis is that drivers of these refractory symptoms may be found by viewing the pelvis as an integrated functional unit, where the bladder, vulvovaginal tissues, and pelvic floor musculature operate as an interconnected system, centrally influenced by the hormonal and neuromuscular milieu.

Beyond the placebo effect: a systematic review and a network meta-analysis of treatment strategies for vulvodynia

Arsenio Spinillo, Mattia Dominoni, et al.

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We are providing an unedited version of this manuscript to give early access to its findings. Before final publication, the manuscript will undergo further editing. Please note there may be errors present which affect the content, and all legal disclaimers apply. **Background:** To comprehensively evaluate the comparative and absolute effectiveness of available treatments for vulvodynia on pain and sexual function outcomes through network meta-analysis (NMA). **Results:** Pain and sexual function outcomes were rescaled to percentage of maximum possible score (POMP, 0–100 scale) to enable pooling across heterogeneous measurement instruments. Both relative treatment effects (comparing interventions to placebo/no treatment) and absolute effects (pre-post changes) were evaluated using Bayesian NMA. Ten treatment categories were analysed: acupuncture, botulinum toxin, topical anaesthetics, topical non-anaesthetics, multimodal/physical therapy, psychological approaches, surgery, tissue-based therapies (photobiomodulation, low-level laser, vaginal transcutaneous electrical nerve stimulation, shockwave therapy), placebo, and no treatment. For pain immediately post-therapy (33 studies, 1,873 women), tissue-based therapies demonstrated superior efficacy compared to placebo in both NMA (POMP difference: -16.1, 95% CI: -24.1, -7.9, mixed evidence, moderate confidence), and pairwise meta-analyses (POMP difference: -20.2, 95% CI: -28.6, -11.7, I^2 = 77%) and ranking highest in surface under the cumulative ranking curve (SUCRA) analysis (85.2%). Pharmacological interventions showed no superiority over placebo. Compared to no treatment, multimodal-physical therapy (POMP: -25.3, 95% CI: -40.8, -9.7, mixed evidence, low confidence), acupuncture (POMP: -25.6, 95% CI: -43.4, -8.1, mixed evidence, moderate confidence), and psychological approaches (POMP -27.4, 95% CI: -44.6, -10.3, indirect evidence, low confidence) all demonstrated moderate-to-high pain reduction. At 3–6 months follow-up (16 studies, 1,106 women), tissue-based treatments remained the only therapy significantly superior to placebo (POMP: -24.5, 95% CI: -42.2, -6.7, mixed evidence, moderate confidence; SUCRA = 77.9%). In absolute effects analysis, placebo produced significant pain reduction (Absolute effect: -13.7, 95% CI: -18.3, -9.3 immediately; -11.7, 95% CI: -17.7, -6.0 at 3–6 months), with confidence intervals overlapping all treatments except tissue-based therapies (Absolute effect: -28, 95% CI: -33.4, -21.7 immediately; -31.6, 95% CI: -43.9, -19.1 at follow-up). Placebo had no effect on sexual function improvement (14 studies, 942 women), (Absolute effect: 2.5, 95% CI: -8., 12.9). At 3–6 months of follow-up (8 studies, 429 women), psychological-based treatments, when added to multimodal treatment (POMP = 9.0, 95% CI = 1.8, 16.7, I^2 = 41.6%), improved modestly sexual functioning. **Conclusions:** In NMA, tissue-based therapies were the most effective treatment for vulvodynia-associated pain, achieving reductions that clearly exceeded placebo effects with moderate evidence quality. Commonly prescribed pharmacological interventions lack robust evidence of superiority over placebo. Multimodal approaches combined with psychological interventions show promise, particularly for sexual function recovery**.**

Vulvodynia (chronic vulval pain)

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https://pubmed.ncbi.nlm.nih.gov/41545061/

A 35 year old woman presents to her general practitioner saying penetrative sex with her partner is painful and that the pain has been progressively increasing in severity over the past year. She describes the pain as burning and located around the opening of the vagina.

Vulvodynia is chronic vulval pain lasting more than three months without an identifiable cause.[1] [2] It can be classified as primary—present from the first physical contact—or secondary, arising after an initial pain-free period.[2] The pain may be localised to a specific area, such as the vestibule or clitoris, or generalised, involving the entire vulva.[2] The exact mechanism of why vulvodynia occurs is not fully understood and is likely multifactorial.

Multiple, large population based surveys in the US estimate the lifetime prevalence of vulvodynia to be 10-28% in the general population.[4] Qualitative studies show themes of delayed diagnosis (in many cases years), symptoms minimised by healthcare providers, and a lack of awareness and understanding by health professionals.[3] [4] For example, in interviews with 10 women aged 25 to 57 in the UK diagnosed with vulvodynia, participants reported experiencing disbelief, stigmatisation, and minimisation of their symptoms by physicians.[4] Interviews of eight women aged 23 to 32 in Norway revealed similar patient experiences.[3]

Vulvodynia, like other vulval pain, often affects quality of life, causing extreme discomfort or pain while wearing underwear, trousers, or while sitting. It can also hinder intimate relationships, gynaecological examinations and procedures, and choice of menstrual products, and can negatively impact daily activities such as going to work, school, and recreational activities.

Hitting the Right Nerve: A Rare Case of Vulvodynia from Sacral Tarlov Cyst Treated with a Minimally Invasive Approach - A Case Report

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https://pubmed.ncbi.nlm.nih.gov/41281833/

Introduction: Tarlov cysts, or perineural cysts, are cerebrospinal fluid-filled sacs typically located in the sacral region. Although often asymptomatic, larger cysts can compress adjacent nerve roots, leading to radicular pain, pelvic discomfort or dysfunction. Neurogenic vulvodynia caused by such cysts is rare and frequently misdiagnosed, particularly in women with normal gynecological and dermatological evaluations. **Case report:** A 31-year-old nulliparous female presented with a 1-year history of sharp, burning vulvar pain radiating to the perianal region and posterior thigh, significantly impairing daily and sexual activities. Examination was unremarkable except for right ischial spine tenderness. Magnetic resonance imaging revealed a 1.7 × 1.2 × 1.3 cm Tarlov cyst at the right S2 neural foramen compressing the nerve root. After failure of conservative therapy, she underwent fluoroscopy-guided injection of triamcinolone and bupivacaine into the S2 dorsal root sleeve, along with continued physiotherapy and pregabalin. **Results:** Within 2 weeks, the patient experienced near-complete symptom relief. At 3 and 6-month follow-ups, she remained asymptomatic. Objective scores improved significantly: Visual Analog Scale reduced from 10 to 2, Oswestry disability index from 44% to 14%, and pelvic floor distress inventory-20 score to zero. She resumed normal activities, including pain-free sexual function. **Conclusion:** This case highlights the importance of considering sacral Tarlov cysts in the differential diagnosis of vulvodynia. A multidisciplinary, minimally invasive approach can offer significant symptom relief. However, longer-term studies are warranted to assess durability and recurrence risk.

Idiopathic vulvodynia - a psychosomatic disease? A cross-sectional single-center study
Ronja Fierz, Cornelia Betschart, et al.
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https://pubmed.ncbi.nlm.nih.gov/41814268/
https://link.springer.com/article/10.1186/s12905-026-04387-1

We are providing an unedited version of this manuscript to give early access to its findings. Before final publication, the manuscript will undergo further editing. Please note there may be errors present which affect the content, and all legal disclaimers apply. **Background**: Idiopathic vulvodynia is a chronic vulvar pain condition that occurs with a high burden of disease and frustratingly low therapeutic success. Psychosomatic factors are discussed to be involved in the onset and presentation of the disease. Sexual abuse has been positively associated with vulvar pain in general; similarly, patients suffering from vulvar pain are discussed to carry certain personality characteristics. Our aim was to examine two psychosomatic aspects: sexual violence/abuse and specific personality traits as associated factors for this particular patient cohort of idiopathic vulvodynia. **Results:** In total, 25% of all vulvar pain patients had a history of sexual abuse, with a prevalence of 17.7% in the idiopathic vulvodynia group. Symptom severity results were similar in idiopathic vulvodynia and other vulvar pain patients, whether they had experienced sexual violence/abuse or not. Also, the logistic regression analysis did not find any age-dependent association of sexual violence/abuse history and vulvodynia. Furthermore, no distinctive divergence in personality traits could be detected in idiopathic vulvodynia patients, neither in comparison to genital eczema or lichen patients, nor to control women. A finding that was further emphasised by Wilcoxon rank-sum testing. Median neuroticism scores in idiopathic vulvodynia patients were, however, highest in patients that reported the least or medium symptom severity. **Conclusions:** Sexual violence/abuse rates of all vulvar pain groups were higher than the estimated rate in the general female population. However, our findings did not suggest a higher prevalence of history of sexual violence/abuse in the idiopathic vulvodynia patients compared to the other vulvar pain groups and no specific personality profile could be demonstrated in idiopathic vulvodynia patients. Furthermore, the subgroup analyses did not show particularly high rates of sexual violence/abuse history or a distinct personality profile in idiopathic vulvodynia patients with more severe symptoms. Due to limited sample size in the present study, such correlations might, however, only be visible in larger patient cohorts. Also, other psychosomatic factors might be of more relevance in distinguishing the disease of idiopathic vulvodynia from other vulvar pain conditions.

Chronic Pelvic Pain

Impact of a Patient-Centered Chronic Pelvic Pain Toolkit on Patient Satisfaction, A Randomized Control Pilot Study
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J Minim Invasive Gynecol. 2026 Feb 13:S1553-4650(26)00132-9. doi: 10.1016/j.jmig.2026.02.025.
https://pubmed.ncbi.nlm.nih.gov/41692123/

Study objective: To determine the impact of a Chronic Pelvic Pain (CPP) Toolkit on patient satisfaction. Design: Single center, prospective, randomized control pilot study. Setting: Outpatient clinics within the

Division of Minimally Invasive Gynecologic Surgery at an academic tertiary care center. **Participants:** Forty-one patients >18yo with CPP were prospectively recruited. **Interventions:** Participants were randomized 1:1 to receive standard care or standard care plus the CPP Toolkit and navigational assistance. The toolkit was filled out by their provider at time of in person evaluation to include relevant educational resources, a personalized treatment grid and a follow up plan. The intervention group additionally received points of contact from the study team at 2 weeks and 2 months. **Measurements and main results:** The primary outcome was patient satisfaction measured via the General Satisfaction subscale of the Patient Satisfaction Questionnaire Short Form (PSQ-18). Secondary outcomes included the Communication and Interpersonal Manner subscales of the PSQ-18, Pain Catastrophizing Scale (PCS) scores, Pain Self Efficacy (PSE), GAD-7 and PHQ-9. Baseline demographics and relevant histories were similar between groups. Median General Satisfaction scores were higher in the intervention group at 1 month (6.0) compared to controls (4.0) (p=0.059), with an odds ratio of 13.1 (95% CI: 0.9-191.97). The Communication subscale scores also favored the intervention at 1 month (OR 8.12, 95% CI: 1.12-58.8, p=0.038). These differences waned over time, with a significant interaction noted between treatment arm and time point (p=0.0441). PCS, PSE, GAD-7, PHQ-9 scores were similar between groups at all time points, although both groups trended towards decreased catastrophizing and increased self-efficacy over time. **Conclusion:** In this pilot study, use of the CPP Toolkit was associated with early improvements in patient satisfaction and communication scores, suggesting benefit as a low-cost intervention. However, the small sample size and wide confidence intervals limited the ability to draw definitive conclusions regarding efficacy. The diminished effect over time highlights the need for longitudinal support strategies to address the healthcare needs of this complex population.

Application progress of radiofrequency (RF) therapy in pelvic floor disorders (PFDs): a narrative review focusing on randomized controlled trials

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https://pubmed.ncbi.nlm.nih.gov/42211909/

Background and objective: The application of radiofrequency (RF) therapy in pelvic floor disorders (PFDs) has been on the rise. However, its efficacy and safety remain a subject of debate. This narrative review aims to synthesize the current evidence from randomized controlled trials (RCTs) on the application of RF therapy in PFDs, including vaginal laxity syndrome (VLS), stress urinary incontinence (SUI), chronic pelvic pain (CPP), and fecal incontinence (FI). This narrative review was conducted to synthesize the current evidence on the application of RF therapy in PFDs, with a specific focus on RCTs to ensure the robustness and reliability of the included evidence. **Key content and findings:** RF technology, a non-invasive/minimally invasive energy-based modality, shows potential in managing PFDs. For VLS, limited RCTs confirm its efficacy in improving symptoms and sexual function with good safety, though treatment protocols and efficacy duration need further study. In SUI, RF works as an effective adjunct to pelvic floor muscle training, but its standalone efficacy and comparison with other modalities require more high-quality research. For CPP and FI, RF's efficacy and safety remain controversial, lacking sufficient evidence-based support for widespread use, with relevant guidelines not recommending it currently. **Conclusions:** Overall, the application of RF therapy in PFDs is still in the exploratory stage, with numerous unresolved issues such as inconsistent treatment parameters, short follow-up periods, small sample sizes, and a predominance of single-center studies. Future research should focus on designing rigorous multi-center, large-sample RCTs, optimizing treatment protocols, clarifying the mechanisms of action, establishing scientific efficacy evaluation systems, and conducting

stratified analyses based on individual differences. This will promote the precise, safe, and effective application of RF therapy in PFDs, providing more high-quality treatment options for patients with PFDs.

Data-driven diagnosis and clinical presentation of high-tone pelvic floor dysfunction
Sara R Till, Andrew Schrepf, et al.
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https://pubmed.ncbi.nlm.nih.gov/41419153/

Background: Despite widespread agreement that high-tone pelvic floor dysfunction is highly prevalent among women with pelvic pain, there is no consensus regarding standardized assessment strategy or diagnostic criteria. Furthermore, there are scant primary data regarding clinical presentation of high-tone pelvic floor dysfunction and most existing literature related to symptoms is based on expert opinion rather than patient-reported data. The lack of consensus in diagnostic assessment and data regarding clinical presentation associated with this condition creates substantial barriers to improving clinical identification and evaluating efficacy of treatment strategies. **Objective:** To identify a pelvic myofascial tenderness score that corresponded to patient-reported reproduction of pain and to compare clinical presentation of patients with and without high-tone pelvic floor dysfunction. **Study design:** Cross-sectional study of 612 patients presenting to a chronic pelvic pain referral center from July 2019 to January 2023. Patients complete comprehensive questionnaires prior to first visit and undergo standardized physical examination, including palpation of 6 pelvic muscle sites (bilateral pubococcygeus, iliococcygeus, and obturator internus) at first visit. Receiver operating characteristic curve analyses were performed to identify a pelvic myofascial tenderness score that corresponded to patient-reported pain reproduction on palpation of pelvic floor muscles. Comparative analyses were performed to explore differences in clinical presentation associated with high-tone pelvic floor dysfunction.
Results: Summative score of ≥12/60 on palpation of pelvic floor muscles demonstrated good accuracy by receiver operating characteristic analyses (sensitivity 82.3%; specificity 79.1%) for patient-reported pain reproduction and compared favorably to previously used methods for classifying high-tone pelvic floor dysfunction. Using ≥12/60 tenderness score as diagnostic threshold for high-tone pelvic floor dysfunction, 389 (63.6%) patients were categorized as having high-tone pelvic floor dysfunction and 223 (36.4%) as no high-tone pelvic floor dysfunction. Compared to patients without high-tone pelvic floor dysfunction, those with high-tone pelvic floor dysfunction were more likely to experience persistent pain with at least 14 pain days per month (odds ratio, 2.32; 95% confidence interval, 1.60, 3.35; P<.001). They were more likely to report pain exacerbation with physical activity, including exercise (odds ratio, 1.69; 95% confidence interval, 1.21, 2.32; P=.002) and walking (odds ratio, 1.85; 95% confidence interval, 1.32, 2.60; P<.001). Patients with high-tone pelvic floor dysfunction were more likely to describe pain as "heavy feeling in the pelvis" and report that pain radiated to other body regions and was associated with nausea and vomiting (all P<.001). Patients with high-tone pelvic floor dysfunction reported significant worse sexual function with more severe and consistent dyspareunia, pain occurring during and continuing 24 hours following intercourse, and were more likely to interrupt or avoid intercourse due to pain (all P<.001). **Conclusion:** High-tone pelvic floor dysfunction should be considered when patients report summative tenderness of ≥12/60 on palpation of 6 pelvic floor muscles. High-tone pelvic floor dysfunction is associated with more persistent pain that may radiate to other body regions and is exacerbated by physical activity. Dyspareunia and impaired sexual function appear to be hallmark symptoms of high-tone pelvic floor dysfunction.

Exploring the Diagnostic and Therapeutic Pathways of Women with Dyspareunia: A Mixed-Methods Study

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Background/Objectives: This study explores the diagnostic and management pathways for dyspareunia in women seeking specialist care, focusing on gynecologists' feedback and women's perceptions of their experience. **Results**: Of 78 women reporting dyspareunia, 12 with pain level ≥5 on NRS were selected for in-depth analysis. The mean pain score was 7.0 ± 1.53, with symptoms lasting from several months to over two years and occurring during most sexual encounters. The mean FSFI score was 24.86 ± 4.54, with half of the participants scoring within the sexual dysfunction range. Qualitative findings revealed frequent dismissive responses from healthcare professionals and limited access to appropriate management. Common self-management strategies included changing sexual positions and using lubricants, while half of the participants had not undergone a formal diagnostic process. Most frequent diagnoses were hormonal disorders and recurrent genital tract infections, and women were advised to undergo pharmacological treatment. Half of the participants were unaware of the possibility of physiotherapeutic management. **Conclusions**: Women with dyspareunia often face an inadequate diagnostic and therapeutic process. The care received is often insufficient and not aligned with a biopsychosocial model.

Lifestyle and Selected Issues Related to Sexual Health: The Importance of Specialist Care in Balneology, Dietetics, and Physiotherapy

Agata Puszcz, Paulina Kozłowska, et al.

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https://pubmed.ncbi.nlm.nih.gov/41517556/

Background/Objectives: Sexual health is shaped by lifestyle factors alongside biomedical determinants. This review synthesises evidence on physiotherapy, balneology/peloidotherapy, and diet therapy as preventive and therapeutic adjuncts for female sexual dysfunctions and related gynaecological conditions. **Results**: Physiotherapy-particularly pelvic floor muscle training, multimodal manual therapy, neuromuscular electrical stimulation (including PTNS), magnetostimulation, short-wave diathermy, and capacitive-resistive monopolar radiofrequency-was consistently associated with reductions in dyspareunia, chronic pelvic pain, and urinary symptoms, with parallel improvements in sexual function and quality of life. Balneological procedures (brine baths/irrigations, crenotherapy, selected radon/sulphide/iodine-bromine applications) and peloidotherapy demonstrated analgesic, anti-inflammatory, and perfusion-enhancing effects, with signals of benefit in vulvodynia, endometriosis, and infertility support. Dietary measures-higher fruit intake (notably citrus), adequate vitamin D, targeted omega-3 use in PCOS, a Mediterranean dietary pattern, and prudent red-meat limitation-were associated with favourable endocrine-metabolic profiles and, in selected contexts, reduced disease risk. **Conclusions**: Integrating lifestyle-medicine modalities with standard care may meaningfully prevent and manage female sexual dysfunctions by addressing pain, perfusion, neuromuscular control, and endocrine-metabolic drivers. Implementation frameworks and high-quality trials are warranted to refine indications, dosing, and long-term effectiveness.

Risk factors of genito-pelvic pain/penetration disorder among Black women in the United States: A conceptual review
Shemeka Thorpe
Health Psychol. 2026 Jan;45(1):48-62. doi: 10.1037/hea0001514.
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Approximately one in five Black women report experiencing pain during their last sexual encounter (Townes et al., 2019). Although Black women experience dyspareunia more frequently and intensely than their White counterparts, they are less likely to receive a proper diagnosis and treatment (Carter et al., 2019). Despite advancements in genito-pelvic pain/penetration disorder (GPPPD) research, the continued omission of Black women and the failure to consider their lived experiences perpetuate the exclusion of Black women's pain experiences and exacerbate inequities in vulvar pain research. Using an intersectional and Black feminist approach, this socioecological conceptual article explores the sociohistorical, sociostructural, sociocultural, and interpersonal factors that uniquely place Black women at risk of experiencing vulvar pain, developing GPPPD, ignoring their GPPPD symptoms, and receiving misdiagnoses. Theoretical frameworks, methodologies, and interventions that should be implemented in future research with Black women experiencing GPPPD symptoms are discussed.

Genitourinary Syndrome of Menopause/Vulvovaginal Atrophy

Objective evaluation of the acute effects of pelvic floor muscle training on vaginal dryness in postmenopausal women: a randomized controlled pilot study
Hatice Gulsah Kurne, Nebahat Uzunay, Doruk Cevdi Katlan, Turkan Akbayrak
Arch Gynecol Obstet. 2026 Jan 12;313(1):32. doi: 10.1007/s00404-025-08267-1.
https://pubmed.ncbi.nlm.nih.gov/41524790/

Purpose: This study aimed to investigate the acute effects of pelvic floor muscle training (PFMT) on vaginal dryness in postmenopausal women using an objective measurement method within the framework of a randomized controlled trial. **Results:** Of the 105 women randomized, 103 completed the study. Baseline characteristics did not differ significantly between groups ($p > 0.05$). Following the intervention, the PFMT group demonstrated statistically significant improvements in VLK scores ($p < 0.05$). Baseline VAS scores were statistically significantly negatively correlated with the initial VLK score (VAS vaginal dryness, VLK r: -0.571, VAS vaginal burning, VLK r: -0.451, VAS dyspareunia, VLK r: -0.460, $p < 0.05$). In addition, the presence of atrophy in the pre-treatment smear test was found to be statistically significantly negatively correlated with the initial VLK score (r: -0.346, $p < 0.05$). **Conclusions:** PFMT significantly reduced vaginal dryness in postmenopausal women compared with the control group. It may be considered a potential treatment option for vaginal dryness. The VLK appears to be a promising objective tool for both assessing vaginal dryness and monitoring treatment outcomes in postmenopausal women. Although these findings are promising, they should be interpreted with caution given the pilot design and the short follow-up. Larger randomized trials are needed to confirm the long-term efficacy of PFMT and to validate the VLK as an objective outcome measure.

Effect of a non-hormonal vaginal moisturizer on vaginal and vulvar health in postmenopausal women with breast cancer: A randomized clinical trial

Barbara Campos Martin, Caroline Nakano VItorino, et al.

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https://pubmed.ncbi.nlm.nih.gov/41719902/

Objective: To evaluate the effectiveness of non-hormonal vaginal moisturizer on vaginal and vulvar health in postmenopausal women with breast cancer. **Study design:** A randomized, open-label trial was conducted in women aged 45-65 years with breast cancer (stages I-III) who had completed oncological treatment (excluding endocrine therapy) and reported vaginal symptoms (vaginal dryness and/or dyspareunia). Participants were randomized into two groups: one group used a vaginal moisturizer (three times per week, at night, n = 50) and the other a vaginal lubricant (during sexual intercourse, n = 50). The 16-week intervention included assessments at baseline, 8, and 16 weeks. **Main outcome measures:** Vaginal and vulvar health were assessed using the Vaginal Assessment Scale (VAS), Vulvar Assessment Scale (VuAS), Vaginal Health Index (VHI), vaginal pH, and Vaginal Maturation Index (VMI). The primary outcome was improvement in vaginal health as measured by the VHI. **Results:** Of the 100 randomized women, 12 discontinued the study (4 in the moisturizer group and 8 in the lubricant group). Adherence to the moisturizer was high (85.9%) and no serious adverse events were reported. At 8 and 16 weeks, the moisturizer group showed significant improvement in VAS ($p = 0.014$) and VuAS ($p = 0.003$) scores, as well as a significant increase in VHI scores, indicating improvements in elasticity, moisture, fluid volume, epithelial integrity, and pH ($p < 0.0001$) compared with the control group. Vaginal pH significantly decreased in the moisturizer group compared with the control group ($p = 0.016$). No significant between-group differences were observed in VMI scores after 16 weeks ($p = 0.213$). **Conclusions:** The non-hormonal vaginal moisturizer was effective in improving vaginal and vulvar health parameters in postmenopausal women with breast cancer compared with a vaginal lubricant.

Efficacy and Safety of CO_2 Laser Therapy Combined with Collagen Cream in Managing Vulvo-Vaginal Atrophy: A Randomized, Controlled Study on Symptom Relief and Microbiome Modulation

Maurizio Filippini, Jessica Sozzi, et al.

Medicina (Kaunas). 2026 Feb 3;62(2):314. doi: 10.3390/medicina62020314.
https://pubmed.ncbi.nlm.nih.gov/41752713/

Background and Objectives: Vulvo-vaginal atrophy (VVA), a prevalent condition among postmenopausal women, significantly impairs quality of life through symptoms like vaginal dryness, dyspareunia, and burning. Non-hormonal treatments, such as CO_2 laser therapy, have shown promise in managing VVA symptoms with minimal side effects. The addition of adjunctive treatments may enhance efficacy and mitigate possible adverse effects. To evaluate the combined efficacy and safety of CO_2 laser therapy and a collagen-based cream in treating VVA and to explore their potential impact on the vaginal microbiome. **Results:** Both groups showed significant symptom improvement, with the combination therapy group demonstrating superior reductions in burning, dyspareunia, and vaginal dryness ($p <$ 0.05). Microbiome analysis revealed increased levels of beneficial species (*Lactobacillus iners* and *Lactobacillus crispatus*) and decreased pathogenic bacteria (*Gardnerella vaginalis* and *Atopobium vaginae*) in the treatment group, though these changes were not statistically significant. Mild side effects, such as burning and swelling in the first days following the treatment, were less frequent in the combination therapy group, likely due to the anti-inflammatory effects of the collagen-based cream. **Conclusions:** This study provides evidence supporting the use of CO_2 laser therapy with collagen-based cream as an effective and well-tolerated treatment for VVA in

postmenopausal women, achieving significant symptom relief. The combined therapy approach holds potential for enhanced efficacy and reduced side effects compared to laser-only treatment, offering a promising alternative for women ineligible for hormone-based therapies.

Laser and radiofrequency for treating genitourinary syndrome of menopause in breast cancer survivors: A systematic review of randomized controlled trial
Nicoli Serquiz, Ayane Cristine Alves Sarmento, et al.
Int J Gynaecol Obstet. 2026 Apr;173(1):99-108. doi: 10.1002/ijgo.70665. Epub 2025 Nov 15.
https://pubmed.ncbi.nlm.nih.gov/41239841/

Background: Breast cancer survivors (BCS) often experience more severe symptoms of genitourinary syndrome of menopause (GSM). As estrogen-based hormonal therapy is generally avoided in BCS, physical energy methods may offer promising non-hormonal alternatives. However, the efficacy and safety of these treatments remain controversial. **Objectives:** To evaluate the efficacy and safety of physical energy methods (laser and radiofrequency) for treating GSM in BCS. **Search strategy:** The databases PubMed/MEDLINE, Embase, Scopus, Web of Science, Cochrane Library, SciELO, LILACS, and Clinical Trial databases were searched from their inception to July 2024, with no language restrictions. **Selection criteria:** We included randomized controlled trials (RCTs) that assessed the efficacy and safety of any physical energy methods for treating GSM in BCS. **Data collection and analysis:** Two authors independently selected studies based on titles, abstracts, and full texts to meet the inclusion criteria. Due to heterogeneity in methodologies and outcomes, a meta-analysis was not possible, so a narrative synthesis was conducted. Data were extracted, and the risk of bias was assessed using the Cochrane risk-of-bias tool (RoB 2). The Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach was used to assess the strength of the evidence. **Main results:** Three RCTs involving 185 participants, and three different physical methods (microablative fractional CO_2 laser, erbium photothermal yttrium-aluminum-garnet laser, and radiofrequency) met the inclusion criteria for this systematic review. Laser and radiofrequency treatments improved GSM symptoms in BCS, with improvements in dyspareunia, the Vaginal Health Index, and quality of life in the short term, with minimal adverse events. Overall, only one study had a low risk of reporting bias, whereas two studies raised concerns due to critical weaknesses. Confidence in the evidence is low and critical across all studies. **Conclusions:** Physical energy methods show short-term safety in treating GSM in BCS. However, limited blinded clinical trials result in uncertain efficacy.

Short-term outcomes and tolerability of a hyaluronic acid-based vaginal gel in the management of genitourinary syndrome of menopause: a retrospective observational study
Rachele Capasso, Maria Giovanna Vastarella, et al.
Gynecol Endocrinol. 2026 Dec 31;42(1):2644646. doi: 10.1080/09513590.2026.2644646. Epub 2026 Mar 16.
https://pubmed.ncbi.nlm.nih.gov/41837853/

Background: Genitourinary syndrome of menopause (GSM) is characterized by vulvovaginal dryness, irritation, dyspareunia, and elevated vaginal pH due to estrogen deficiency-related changes of the lower genital tract. Non-hormonal therapies, including hyaluronic acid (HA)-based vaginal gels, are increasingly used to improve local tissue hydration and symptoms. **Objective:** To assess short-term clinical outcomes and local tolerability associated with a hyaluronic acid-based vaginal gel (Gynexelle Hyalo-Duo) in women with GSM. **Results:** At T_2, mean VHI increased from 12.7 ± 3.3 to 19.3 ± 4.0 ($p < 0.001$), VuHI

decreased from 5.3 ± 3.8 to 2.5 ± 3.5 ($p < 0.001$), and SESS improved from 11.8 ± 3.3 to 2.4 ± 3.9 ($p < 0.001$). Vaginal pH decreased from 6.1 ± 1.0 to 4.7 ± 0.8 ($p < 0.001$). Improvements were observed in both reproductive-age and postmenopausal women. No adverse events were documented. **Conclusion:** Short-term use of a hyaluronic acid-based vaginal gel was associated with improvements in vulvovaginal symptoms and vaginal health parameters, with good local tolerability, in a real-world observational setting.

Carboxytherapy for Genitourinary Syndrome of Menopause: A Pilot Study
Antonella De Ponte, Sara Sofía Bermúdez Sparice, et al
Aesthet Surg J Open Forum. 2026 Feb 16:8:ojag019. doi: 10.1093/asjof/ojag019. eCollection 2026.
https://pubmed.ncbi.nlm.nih.gov/42022469/

Carboxytherapy has emerged as a promising nonhormonal therapy for genitourinary syndrome of menopause (GSM) and associated female sexual dysfunction. GSM, characterized by vulvovaginal tissue changes because of estrogen depletion, often leads to vaginal dryness, reduced elasticity, and dyspareunia. This pilot study aimed to evaluate the preliminary efficacy and safety of carboxytherapy in postmenopausal women with GSM. In this prospective pilot trial, postmenopausal women with GSM underwent 5 sessions of controlled CO_2 administration using a specialized carboxytherapy device. Outcomes were assessed using the Bachmann Vaginal Health Index (VHI), the Vulvar Health Index (VuHI), the Female Sexual Function Index-6 (FSFI-6), and pain measured with the visual analog scale (VAS). Evaluations were performed at baseline and 1 month after treatment. Nineteen women completed the study. Posttreatment assessments demonstrated significant improvements in VHI scores (from 12.55 ± 2.56 to 18.26 ± 3.72; $P < .001$) and decreases in VuHI scores (from 9.80 ± 2.40 to 3.37 ± 3.67; $P < .001$). FSFI-6 scores improved from 12.55 ± 4.70 to 17.95 ± 7.61 ($P = .017$). Pain during treatment was minimal, with a mean VAS score of 1.95 ± 0.94. Carboxytherapy appears to be a safe, well-tolerated, and potentially effective nonhormonal option for managing GSM, particularly in cases with significant vulvar involvement. However, given the small sample size, lack of a control group, and short follow-up, these findings should be considered preliminary. Larger randomized controlled trials with longer follow-up are needed to confirm the durability and generalizability of these results. **Level of Evidence**: 4 (Therapeutic).

Autologous Fat Grafting Combined With Platelet-Rich Plasma in the Treatment of Female Genitourinary Aging: A Retrospective Study
Qing-Xian Ren, Kai-Zi Li, Guo-Liang Shen, Chun-Hui Huang
https://pubmed.ncbi.nlm.nih.gov/41560958/

Background: Female genitourinary aging (because of childbirth, menopause, weight changes, and aging) causes genital shrinking, vaginal laxity, dyspareunia, and urinary issues, impairing quality of life. Current treatments (lubricants, hormone creams, and laser) are temporary, have drawbacks, or lack clear guidelines. Autologous fat grafting (AFG) enables safe volumization, and platelet-rich plasma (PRP) promotes tissue repair, but evidence for their combination here is scarce. **Objectives:** The aim of this study was to explore the clinical efficacy and safety of AFG combined with PRP in female external genitalia and vaginal rejuvenation. **Results:** Postoperative VLQ scores rose from 2.45 ± 0.81 to 5.03 ± 1.15 ($P = .027$). All 6 dimensions of the FSFI (sexual interest, sexual arousal, vaginal lubrication, orgasm, sexual satisfaction, and dyspareunia) and the total FSFI score also significantly improved (all $P < .05$), with a mean total FSFI increase of 9.0 ± 2.3 points (a ≥4-point increase is clinically meaningful); 92.1%

(35/38) were "very satisfied" with appearance/tightness. Only 2 (5.3%) experienced mild redness (resolved with oral antibiotics); no severe complications occurred. **Conclusions:** In this small cohort with limited follow-up, AFG combined with PRP treatment appears to improve the external appearance of female external genitalia and vaginal aging and enhance genital function, improve patient-reported sexual function (based on FSFI) and reduce urinary system problems.

Persistent Genital Arousal Disorder Case Reports

Dorsal genital nerve neuromodulation in persistent genital arousal disorder: a pilot study
Lars L Boogaard, MSc , Puck Oude Elferink, MD , et al.
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https://academic.oup.com/jsm/article/23/1/qdaf348/8376829?login=false
https://pubmed.ncbi.nlm.nih.gov/41370250/

Persistent Genital Arousal Disorder (PGAD), also referred to as Restless Genital Syndrome, Persistent Sexual Arousal Syndrome, or Genito-Pelvic Dysesthesia, is a rare and often distressing condition marked by spontaneous and persistent genital arousal in the absence of sexual desire or stimulation. While predominantly reported in females, PGAD can also affect males. Symptoms such as genital tingling, throbbing, and pressure may persist for extended periods, significantly impairing quality of life and contributing to emotional distress, including embarrassment, guilt, and depression.[1]
PGAD's impact on quality of life can be profound, often leading to feelings of embarrassment, guilt, and depression. The prevalence is estimated between 0.6% and 3.0%, which is believed to be an underestimation.[2] Current treatment options are limited and primarily based on case reports or clinical experience, with pharmacological and psychological interventions yielding inconsistent results. This underscores the urgent need for innovative therapeutic approaches.

Clinical characterization and management of persistent genital arousal disorder/genito-pelvic dysesthesia (PGAD/GPD): a registry study
Franziska Maxi Lisa Marie Kümpers, Sophie Köhne, Tillmann H C Krüger
Sex Med. 2026 Jan 31;14(1):qfaf106. doi: 10.1093/sexmed/qfaf106. eCollection 2026 Feb.
https://pubmed.ncbi.nlm.nih.gov/41625175/

Background: Persistent genital arousal disorder (PGAD)/genito-pelvic dysesthesia (GPD) is a disabling disease, where patients perceive prolonged genital arousal without sexual desire. The condition mainly occurs in women. Etiopathological considerations reach from peripheral to central nervous system mechanisms. **Aim:** To clinically and anamnestically characterize patients with PGAD/GPD using data from a dedicated patient registry. **Outcomes:** The primary outcome was to identify common clinical features, symptom patterns, trigger and relieving factors, comorbidities, and therapeutic strategies. **Results:** Persistent genital arousal disorder symptoms were mostly characterized as tingling and were almost permanently present. In over 80%, PGAD symptoms were located in the clitoris (women) or in the glans penis (men); 50% reported extragenital manifestations. Thirty-four percent described symptoms such as GPD. PGAD presented with high rates of swelling of the genitals (46%), spontaneous orgasms (30%), and extraordinary lubrication (27%). Most frequent trigger factors were mental stress, sitting, wearing tight clothes, and vibration. Relieving factors were mainly distraction, physical exercise, and warmth. Half of the patients stated increased urinary urge. More than 40% stated symptoms of

overactive bladder syndrome. About one third reported restless legs symptoms. Almost 70% had comorbid psychiatric diseases, mainly depressive disorders. In most cases, those occurred after the onset of PGAD/GPD symptoms. Further diagnostic procedures covered urogynecological and neurological examinations as well as magnetic resonance imaging of brain, spinal cord, and pelvis. Non-pharmacological therapeutic approaches included among others physiotherapy, psychotherapy, transcutaneous electrical nerve stimulation, neurosurgical procedures, or pudendal block. In the majority, a clear somatic correlate for PGAD/GPD was not found. **Clinical implications:** The findings highlight the complex and multifactorial nature of PGAD/GPD, advocating interdisciplinary diagnostics and individualized treatments due to high psychiatric comorbidity and the absence of consistent somatic findings. **Strengths and limitations:** The study's strength lies in its large sample size and comprehensive clinical profiling of PGAD/GPD patients; however, its retrospective registry-based design and the absence of a control group represent significant limitations. **Conclusion:** This first registry-based study of PGAD/GPD in a larger cohort highlights the need for future controlled studies with larger sample sizes and more specified clinical assessments according to consensus statements for a better understanding of the clinical appearance and the etiopathology of PGAD/GPD.

Case Report: Development of persistent genital arousal disorder due to a possible combination of medications
Ludek Fiala, Jiří Lenz
Front Psychiatry. 2025 Nov 25:16:1709728. doi: 10.3389/fpsyt.2025.1709728. eCollection 2025.
https://pubmed.ncbi.nlm.nih.gov/41377477/

Objective: Persistent Genital Arousal Disorder (PGAD) is a rare and distressing condition characterized by persistent genital arousal in the absence of sexual desire. We present a unique case of a menopausal woman who developed PGAD after combined pharmacotherapy with trazodone, pregabalin, vaginal estriol, and depot medroxyprogesterone acetate (DMPA). **Results:** PGAD symptoms emerged shortly after initiating the combination of these medications. Each drug has been individually associated with alterations in sexual function, but their concurrent use may have produced synergistic effects on neuroendocrine pathways. Gradual discontinuation of all medications resulted in complete remission of symptoms. **Conclusion:** This case supports the hypothesis that combined modulation of serotonergic, neuronal, and hormonal systems can trigger PGAD in predisposed menopausal women. Recognition of potential pharmacological interactions is crucial for diagnosis and management of PGAD.

Pudendal Neuralgia

MRI in Chronic Pudendal Neuralgia: Diagnostic Criteria and Associated Pathologies
Michele Gaeta, Sofia Turturici, et al.
Diagnostics (Basel). 2026 Jan 20;16(2):326. doi: 10.3390/diagnostics16020326.
https://pubmed.ncbi.nlm.nih.gov/41594302/

Background/Objectives: Chronic pudendal neuralgia is a relatively rare condition in the general population, with an incidence of 1%. Although diagnosis of pudendal neuralgia is mainly clinical, Magnetic Resonance Imaging (MRI) is commonly performed to obtain further information. However, clear criteria and guidelines for MRI diagnosis and the clinical-radiological correlation are still not definite. **Results:** MRI examination revealed DWI abnormalities in 42/81 patients. Pudendal nerve

abnormalities were unilateral in 33/42 patients and bilateral in 9/42. Moreover, in 23/42 patients, pathologies related to a high probability of neuropathy have been identified. **Conclusions**: This study highlights the role of pelvic MRI as a valuable imaging modality in the evaluation of patients with chronic pudendal neuralgia. In the study protocol we propose, an essential role is played by the DWI technique, which improves the visual definition of the pudendal nerve and related anatomical structures. By focusing on anatomical visualization and structured image interpretation, our work provides a practical imaging-oriented contribution to a field in which standardized MRI evaluation is still lacking.

Minimally Invasive Interventional Management of Pudendal Neuralgia: A Narrative Review
Christopher M Lam, Christopher L Robinson, et al.
Curr Pain Headache Rep. 2026 Jan 19;30(1):22. doi: 10.1007/s11916-025-01434-8.
https://pubmed.ncbi.nlm.nih.gov/41553637/

Purpose of review: Chronic pelvic pain (CPP), affecting approximately 26% of women globally, is a multifactorial condition with causes including, but not limited to, gynecologic disorders, musculoskeletal disorders, and neuropathic disorders including pudendal neuralgia. A comprehensive evaluation and a multimodal treatment strategy - encompassing medical, minimally invasive non surgical, and surgical therapies - are essential for effective management. This narrative review explores current minimally invasive interventional management options for pudendal neuralgia causing CPP. **Recent findings:** Pudendal nerve blocks demonstrated pain relief, but the duration of relief varied. Pulsed radiofrequency ablation revealed longer-lasting pain relief compared to pudendal nerve blocks, with several clinical trials and case reports supporting its efficacy. Additionally, neuromodulation techniques, including neuraxial and peripheral nerve neuromodulation, showed promising results in alleviating pain for patients who did not respond to conservative measures. While studies describe interventional therapy for pudendal neuralgia, there is a dearth of randomized controlled trials, which limits the ability to generalize treatment options for pudendial neuralgia. Despite this, current data suggest the possible benefit of interventional management of for pudendal neuralgia.

Anatomical Variation of the Pudendal Nerve and Related Structures
Junjie Yang, Katie E Webb, et al.
Eur Urol Open Sci. 2026 Feb 9:85:71-81. doi: 10.1016/j.euros.2026.01.015. eCollection 2026 Mar.
https://pubmed.ncbi.nlm.nih.gov/41705166/

Background and objective: The pudendal nerve (PN) typically arises from sacral roots S2-S4 and gives rise to three main branches: inferior rectal, perineal, and dorsal genital nerves. However, conditions such as pudendal neuralgia and persistent genital arousal disorder exhibit great variability in clinical course and therapeutic responses. Anatomical variation of the PN may contribute to this variability by placing the nerve or its branches in vulnerable positions that lead to compression or traction. This scoping review examined PN anatomical variations to gain a better understanding of their role in pathophysiology and clinical outcomes. **Key findings and limitations:** The review revealed substantial anatomical diversity in nerve roots, trunk, branches, and related structures, for which detailed schematic illustrations were developed. Limitations include methodological heterogeneity across studies, the predominance of elderly cadaver specimens, and lack of formal quality assessment. **Conclusions and clinical implications:** Anatomical variation is a key factor in the development and persistence of PN-related conditions. An understanding of this variability is critical for diagnosis, surgical planning, and effective management. This review challenges assumptions of "typical anatomy" and

offers context for refinement of decompression techniques and therapeutic strategies. **Patient summary:** Our study shows that one of the nerves in the pelvis, called the pudendal nerve, varies between individuals. This could explain why standard treatments do not work in some patients and could help doctors to better understand these conditions.

Fluoroscopy-Guided Transgluteal Radiofrequency Neurotomy of the Pudendal Nerve: A Retrospective Case Series
Danielle Levin, Daniel Van Florcke, et al.
Pain Med Case Rep. 2025 Dec;9(7):353-361.
https://pubmed.ncbi.nlm.nih.gov/41533641/

Background: Pudendal neuralgia (PN) is a chronic condition causing persistent genital and rectal pain. While pudendal nerve blocks offer temporary relief, their effects are often short-lived. When nerve blocks fail, radiofrequency neurotomy (RFN) may be an alternative treatment. This study evaluates the outcomes of fluoroscopy-guided thermal or pulsed RFN in patients with transient relief from nerve blocks. **Case reports:** Patients underwent fluoroscopy-guided transgluteal RFN (thermal or pulsed). Seven patients treated with pulsed RFN experienced ≥ 50% pain relief, lasting 29 to 152 days. One patient treated with thermal RFN had multiple treatments, achieving pain relief ≤ 1 months. Patients also reported significant functional improvements. **Conclusions:** Fluoroscopy-guided transgluteal thermal and pulsed RFN shows promise for patients with limited relief from nerve blocks.

Dermatological Conditions

Postbiotics originated from Lactobacillus crispatus NCU-31 improves vulvar lichen sclerosus: a randomized, double-blind controlled trial
Hong Liao, Qifa Huang, et al.
BMC Microbiol. 2026 Jan 21;26(1):188. doi: 10.1186/s12866-026-04738-w.
https://pubmed.ncbi.nlm.nih.gov/41566207/

BACKGROUND: Vulvar lichen sclerosus (VLS) is a chronic inflammatory skin disorder that severely impairs women's physical and psychological well-being. Topical glucocorticoids are the first-line treatment; however, their long-term efficacy is limited due to frequent symptom relapse after discontinuation and incomplete resolution of lesions. Therefore, effective adjunctive strategies are urgently needed to achieve sustained disease control. METHODS: This study aimed to first characterize disease-associated alterations in vulvar skin microbiota by comparing patients with VLS and healthy volunteers using 16S rRNA gene sequencing. Based on these findings, we further evaluated the clinical efficacy of a postbiotic derived from Lactobacillus crispatus NCU-31 and its modulatory effects on vulvar skin microbiota in patients with VLS. Clinical efficacy was assessed using the Cattaneo Clinical Score and Investigator's Global Assessment (IGA), Dermatology Life Quality Index (DLQI), and Vulvar Quality of Life Index (VQLI). RESULTS: Compared with healthy volunteers, VLS patients exhibited significantly increased microbial richness and diversity, characterized by a reduced relative abundance of Lactobacillus and elevated levels of Prevotella, Gardnerella, Dialister, and Streptococcus ($p < 0.05$). Compared with the placebo group, patients receiving combined postbiotic and glucocorticoid treatment showed significant clinical improvement, including lower IGA scores (0.38 ± 0.49 vs. 1.38 ± 0.49), improved DLQI (0.16 ± 0.37 vs. 3.86 ± 1.01), and improved VQLI (0.74 ± 0.66 vs. 6.36 ± 1.14) ($p < 0.05$). In addition, microbial

dysbiosis was partially reversed in the postbiotic group, whereas no comparable microbiota normalization was observed in the placebo group. CONCLUSIONS: This two-phase study first included an exploratory comparison of vulvar skin microbiota between patients with VLS and healthy controls, which provided biological context for the subsequent clinical investigation. Building on these findings, we demonstrated that the addition of L. crispatus NCU-31–derived postbiotics to standard glucocorticoid therapy significantly improved clinical outcomes and partially restored microbial homeostasis in patients with VLS. These results support the potential of postbiotic-based, microbiota-targeted adjunctive strategies for the management of VLS.

Fractional CO_2 Laser and Estrogen Ointment: A Novel Combined Approach for Treating Vulvar Lichen Sclerosus in Postmenopausal Women
Yuanyuan Chen, Haizhen He, et al.
Lasers Surg Med. 2026 Feb;58(2):79-92. doi: 10.1002/lsm.70052. Epub 2025 Dec 17.
https://pubmed.ncbi.nlm.nih.gov/41408375/

Background: Vulvar lichen sclerosus (VLS) is a chronic inflammatory condition predominantly affecting postmenopausal women, often leading to significant discomfort and impaired quality of life. Current treatments, such as topical corticosteroids, have limitations in efficacy and long-term safety. Fractional CO_2 laser therapy has emerged as a promising modality for managing VLS, but its combination with topical estrogen remains underexplored. **Objective:** This study aimed to evaluate the efficacy and safety of combined fractional CO_2 laser and topical estrogen therapy in managing VLS in postmenopausal women. **Results:** At both 3 months and 1 year after treatment, the intervention group showed a significant reduction in VLSSS compared to the control group ($p < 0.001$). Histopathological analysis demonstrated reduced inflammation and fibrosis. Patient-reported outcomes revealed significant improvements in sexual function (FSFI) and quality of life (CECA10) in the combined therapy group. Additionally, the recurrence rate at 1 year was significantly lower in the intervention group (17.14%) than in the control group (31.43%, $p < 0.001$). No severe adverse events were reported. **Limitations:** The study's sample size was relatively small, and the follow-up period was limited to 6 months, which may not capture long-term outcomes. Additionally, the single-center design may limit generalizability. **Conclusion:** Combined fractional CO_2 laser and topical estrogen therapy is a safe and effective approach for managing VLS in postmenopausal women, offering significant symptom relief and improved quality of life. Further studies with larger cohorts and longer follow-up are warranted to confirm these findings.

Lipofilling a new insight in vulvar lichen sclerosus treatment: a preliminary evaluation
Matteo Terrinoni, MD , Angelo Baldoni, MD
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https://pubmed.ncbi.nlm.nih.gov/41364560/

Vulvar lichen sclerosus (VLS) is a chronic inflammatory dermatosis that can have profound effects on both the anatomical and functional aspects of the vulvar region. Patients suffering from this condition often experience significant discomfort and a compromised quality of life, necessitating long-term management strategies. High-potency corticosteroids are gold standard therapy. However, chronic corticosteroid use is associated with potential side effects and may not provide a definitive solution for all patients. Considering these limitations, our preliminary evaluation sought to afford the feasibility and potential benefits of an alternative therapeutic approach: autologous lipofilling.

Autologous lipofilling may offer a regenerative approach to symptomatic VLS by restoring lost vulvar volume and delivering adipose-derived regenerative cells to atrophic, scarred tissue. These stem cells are known for their regenerative potential, which may help in modulating local inflammation, promoting tissue repair, and ultimately improving both aesthetic and functional outcomes. We report a single-center pilot case series of 15 patients with biopsy-confirmed VLS treated with autologous lipofilling and followed for 12 months. The study protocol was approved by the local Institutional Review Board (Prot. N. CE-2979/25) and all participants provided written informed consent. All images are anonymized and published under explicit consent of the patient. All included patients had persistent symptoms despite a period of topical high-potency corticosteroid (mometasone furoate 0.1%) therapy prior to enrolment for at least 12 months.[1,2] The population had a median age of 63 years (range 56-75), 2 current smokers and no substantial medical comorbidities affecting wound healing (see Table S1). Abdominal adipose tissue was harvested through a minimally invasive technique. Procedures were performed under sterile conditions and local anesthesia, with immediate reinjection.
Per-patient injected volumes was 10 mL (5 mL for each emivulva) and anatomical targets were labia minora, labia majora, and adjacent perivulvar tissues. The simplicity and single-step nature of the procedure make it an attractive option, especially when compared to more complex surgical interventions. No donor- and recipient-site adverse events were recorded during all follow-up period except for 3 cases of abdominal ecchymosis.
In summary, in this preliminary cohort of 15 patients autologous lipofilling was feasible, safe, and associated with statistically significant reductions in symptom severity and improvements in sexual function and quality of life at 12 months. Most patients discontinued topical corticosteroids and all observed outcomes trended toward benefit with moderate-to-large within-subject changes. These findings are hypothesis-generating and justify a prospective, controlled trial with standardized injection protocols, blinded outcome assessment, objective tissue endpoints (vulvar volume or thickness, histologic markers of inflammation and fibrosis), longer follow-up to determine durability and generalizability and cost-effectiveness metrics. Pending such trials, lipofilling may be considered an investigational adjunctive option for patients with symptomatic, refractory VLS where standard conservative measures provide insufficient relief.

Comparison of the efficacy and adverse reactions of ATP combined with microwave therapy and traditional glucocorticoid therapy for lichen sclerosus in women
Xiaojiao Pei, Mengke Wang, et al.
Medicine (Baltimore). 2026 Jan 23;105(4):e47198. doi: 10.1097/MD.0000000000047198.
https://pubmed.ncbi.nlm.nih.gov/41578580/

This study aims to compare the efficacy and adverse reactions of adenosine triphosphate (ATP) combined with microwave therapy and traditional glucocorticoid therapy for lichen sclerosus (LS) in women, providing a new reference for clinical management. This retrospective comparative study analyzed the clinical data of 120 women with LS who were treated in the Gynecology Outpatient Department of the Fourth Hospital of Shijiazhuang from December 2023 to December 2026. According to the treatment methods they received, the patients were divided into 4 groups: the control group (glucocorticoid therapy), the ATP group, the microwave group, and the combined group (ATP combined with microwave therapy), with 30 cases in each group. Clinical efficacy, symptom scores, adverse reactions, and recurrence rates were evaluated after 3 months of treatment. The total effective rate of the combined group was significantly higher than that of the other 3 groups ($P < .001$). The combined group showed significantly lower symptom scores at 1 week, 1 month, 2 months, and 3 months after treatment compared with the other 3 groups ($P < .05$). The incidence of adverse reactions in the

combined group was significantly lower than that in the other 3 groups (P <.05). During the 1-year follow-up, the recurrence rate of the combined group was also significantly lower than that of the other 3 groups (P <.05). ATP combined with microwave therapy demonstrates superior clinical efficacy in relieving symptoms of LS, with fewer adverse reactions and a lower recurrence rate compared with traditional glucocorticoid therapy. As a noninvasive treatment approach, it provides a promising option for the clinical management of LS in women.

Differential Clinical Signatures of Vulvar Lichen Sclerosus, Lichen Planus, and Chronic Lichen Simplex: A Comparative Study in 1355 Patients
Qiang Hu, Kailü Sun, et al.
Investig Dermatol. 2026 Jan 31:19:570982. doi: 10.2147/CCID.S570982. eCollection 2026.
https://pubmed.ncbi.nlm.nih.gov/41878554/

Background: Vulvar lichen sclerosus (VLS), vulvar lichen planus (VLP), and vulvar lichen simplex chronicus (VLSC) are inflammatory dermatoses with overlapping clinical features, posing diagnostic challenges. VLS and VLP carry malignant potential, unlike VLSC. Comparative studies are limited despite frequent misclassification. **Objective:** To compare the clinical characteristics of VLS, VLP, and VLSC and identify distinguishing diagnostic features. **Results:** Patients with VLP had a significantly higher median onset age (44 years) than VLS (30 years) or VLSC (34 years) (*P*<0.001). Diagnostic delay was longest in VLS (median 5 years vs 3 years for VLP/VLSC). Pruritus prevalence and intensity (median Numerical Rating Scale [NRS]) were highest in VLSC (100%; NRS 7), followed by VLS (92%; NRS 5) and VLP (60%; NRS 2). Pain was most frequent in VLP (79%) vs VLS (14%) and VLSC (<1%). VLSC patients reported the highest mean Dermatology Life Quality Index scores (8.67), driven by severe pruritus. Sexual dysfunction was common in both VLS (81%) and VLP (85%). Anatomically, VLS primarily affected the clitoris, labia minora, and interlabial sulci; VLSC predominantly involved the labia majora and perianal region. Vaginal introitus involvement characterized VLP (90%). Lesion morphology differed: VLS featured white patches (84%) and lichenification (61%), VLP erosion (76%), and VLSC marked lichenification (89%).
Conclusion: VLS, VLP, and VLSC exhibit distinct differences in age of onset, clinical manifestations, lesion morphology, and anatomical distribution despite clinical overlap. Recognizing these features facilitates accurate diagnosis, guides individualized treatment, improves long-term outcomes, and enables early detection of malignant potential in VLS/VLP.

Injection of hyaluronic acid and polynucleotides in patients with vulvar lichen sclerosus—a preliminary evaluation
Matteo Terrinoni, MD, Gabriela Baiocchi, MD, et al.
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https://pubmed.ncbi.nlm.nih.gov/41620978/

Vulvar lichen sclerosus (VLS) is a chronic inflammatory dermatosis characterized by white plaques, pruritus, pain, and scarring, with an occasional increased risk of squamous cell carcinoma. Estimates in the literature place the lifetime risk broadly between ~2% and 7%, underscoring the need for effective long-term control of inflammation and disease progression. Although the condition is frequently underdiagnosed, its impact on quality of life and sexual function is significant. The standard therapeutic

approach involves the use of ultrapotent topical corticosteroids (TCS), which are generally effective in reducing symptoms. Up to ~30% patients fails to achieve sufficient relief with TCS alone.[1]
Hyaluronic acid (HA) is an endogenous glycosaminoglycan that ensures tissue hydration and maintains the integrity of the extracellular matrix. Its highly polar structure promotes the formation of a hydrated, high-molecular weight network and enables it to act as a signaling molecule that modulates inflammatory responses. Polynucleotides (PN), derived from fish sources, support tissue hydration and stimulate fibroblast activity, thereby enhancing type III collagen synthesis. While HA provides a hydrated scaffold, PN promotes cellular repair, leading to improved tissue elasticity and reduced inflammation. Based on these properties, it was hypothesized that a combined HA + PN injectable formulation could offer both symptomatic relief and tissue regeneration in patients with VLS refractory to topical corticosteroids.
A pilot case series was conducted at the "Alto Tevere" Hospital of Città di Castello, from January 2021 to December 2024, with the aim of evaluate the feasibility and preliminary efficacy of adjunctive injections of a HA and PN mixture in VLS patients who were poor responders to standard TCS therapy.
Thirty patients with diagnosis of VLS were identified as poor responders after 6 months of a graduated regimen of mometasone furoate cream 0.1%: 1 application each day for 1 month, 1 application alternate days for 1 month and 1 application two times a week on a continuous basis. These patients continued with maintenance TCS therapy (administered twice weekly) while also receiving injections of an HA and PN mixture at a concentration of 10 mg/ml each (combined therapy) as follows (Figure S1).
In conclusion, adjunctive HA and PN injections combined with maintenance TCS produced improvements in symptoms and sexual function in poor responders to standard treatment; however, given study's design limitation and small sample size, these findings should be considered preliminary and interpreted with caution.[4]

Topical Tacrolimus for Lichen Sclerosus: Systematic Review of Efficacy and Safety
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Introduction: Lichen sclerosus (LS) is a chronic inflammatory dermatosis affecting both genital and extragenital sites, with a prevalence of approximately 3% among females in the United Kingdom, particularly in the post-menopausal population. Although its etiology remains incompletely understood, LS can significantly impair quality of life through pain, pruritus, and scarring. Current guidelines recommend potent topical corticosteroids, most commonly clobetasol, as first-line therapy; however, long-term use is limited by adverse effects such as skin atrophy.
Objectives: This systematic review evaluates the efficacy and safety of topical tacrolimus in the management of lichen sclerosus. **Results:** Of the included patients, 2% (N=6) presented with extragenital disease and 98% (N=331) with anogenital involvement. Most patients (81%, N=272) were treated with topical tacrolimus 0.1% twice daily, while 19% (N=63) received clobetasol as a comparator. Clinical improvement, ranging from partial symptom relief to complete remission, was observed in 90% (N=244) of tacrolimustreated patients. Severe adverse events requiring discontinuation were rare (1%, N=3). Compared with corticosteroids, tacrolimus was associated with superior patient-reported outcomes, clinician-reported improvement, and histological response. **Conclusion:** Topical tacrolimus appears to be a safe and effective therapeutic option for lichen sclerosus, demonstrating favorable clinical and histological outcomes with minimal adverse effects. Further long-term prospective trials are needed to confirm its comparative efficacy, safety, and role in future treatment guidelines.

Comparison of long-term efficacy and safety of different therapeutic approaches for vulvar Lichen sclerosus: a systematic review and meta-analysis

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Aim: This systematic review and meta-analysis aimed to compare the long-term efficacy and safety of physical therapies (laser and photodynamic therapy) versus conventional topical glucocorticoids for the treatment of vulvar lichen sclerosus (VLS). **Results:** Analysis indicates that physical therapies are generally superior to topical glucocorticoids in improving clinical symptoms, with photodynamic therapy (PDT) demonstrating the most significant relief. In terms of safety, adverse events associated with physical therapies were predominantly mild and transient local reactions (e.g., burning or redness), whereas topical glucocorticoid use carried risks of secondary infections, such as candidiasis. Furthermore, physical therapies, particularly PDT, showed better long-term recurrence control compared to glucocorticoids, which had high recurrence rates after discontinuation. **Conclusion:** Laser therapy and PDT are effective and safer alternative treatments for VLS. These modalities offer distinct advantages in sustained symptom relief and recurrence reduction, especially for patients with refractory disease or concerns regarding long-term steroid use.

P03 Evaluation of patient outcomes from a novel paediatric vulval clinic in Oxford

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Background: Our Oxford paediatric vulval clinic provides specialist care with a mean time to stabilisation of 6.8 ± 3.3 months. Increasing awareness of paediatric vulval conditions, e.g. lichen sclerosus-often misdiagnosed and common in prepubescent girls-promotes earlier treatment, reducing long-term complications, like scarring and dyspareunia. Evaluation of patient outcomes, symptom improvement, and referral pathways aims to improve practice and support development of services nationally. **Results:** Twenty-two children were included, with a mean age of 10.4 ± 5.5 years. 63.6% of referrals were from GPs, with a proportion of these initially being seen in our paediatric dermatology clinic before transferring them to the specialist clinic. The cohort was ethnically diverse: 50.0% White British, with Mixed White and Caribbean (9.1%), and Black British, Indian British, Chinese, and Pakistani British each representing 4.5%. Presenting symptoms included vulval itching (31.8%), soreness or pain (22.7%), flares despite treatment (18.2%), pallor/pale patches (18.2%), and skin splitting/cuts (18.2%). Diagnoses comprised lichen sclerosus (68.2%), vulvitis (9.1%), infantile haemangioma (9.1%), and smaller proportions of eczema, complex aphthous stomatitis, and recurrent inflamed follicular lesions. Fourteen patients (63.6%) were stabilised or discharged. **Conclusion:** The clinic serves a diverse patient group with varied symptoms, highlighting challenges such as parental engagement and treatment adherence. Findings support expanding specialised services and developing national guidelines. Further data collection is planned for January-June 2025 to evaluate service efficacy.

The risk of thyroid diseases in lichen sclerosus patients: a systematic review and meta-analysis

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https://pubmed.ncbi.nlm.nih.gov/40838954/

Background/objective: Lichen sclerosus (LS) is a chronic inflammatory skin disease affecting both genital and extra-genital areas and is found predominantly in female patients. The relationship between LS and thyroid diseases remains unclear, with conflicting evidence reported in the literature. This systematic review and meta-analysis aimed to investigate the association between LS and thyroid diseases rigorously. **Results:** A total of 14 observational articles encompassing 22,112,979 participants were included. Nine of these studies included only female participants. The analysis revealed that LS was significantly associated with an increased risk of autoimmune thyroid diseases, with an odds ratio of 2.38 (95% CI, 1.46-3.86; I^2 = 84%). Additionally, an association was found between hyperthyroidism and an odds ratio of 2.01 (95% CI, 1.40-2.88; I^2 = 0%). Furthermore, patients with LS exhibited a non-significant increase in the odds ratio for Graves' disease, Hashimoto's thyroiditis, hypothyroidism and other unspecified thyroid disorders. **Conclusions:** This meta-analysis provided insight into thyroid diseases in patients with LS, revealing a significant association with an increased risk of autoimmune thyroid disease and hyperthyroidism. Further research is needed to clarify this association and enhance the comprehensive care of patients with LS.

Elevated expression of immune checkpoints and pro-inflammatory cytokines as potential biomarkers in pediatric Vulvar Lichen Sclerosus

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https://pubmed.ncbi.nlm.nih.gov/41629379/

Vulvar Lichen Sclerosus (VLS) is a chronic inflammatory dermatosis of unknown etiology affecting the external genitalia. In pediatric patients, it can lead to significant discomfort and progressive structural changes in tissues. In recent years, there has been increasing interest in the participation of immune checkpoints and inflammatory mediators in the pathogenesis of chronic diseases, including VLS. Immune checkpoints, such as PD-1, PD-L1, CTLA-4, CD200, and CD200R, play a crucial role in modulating the immune response and may serve as potential diagnostic markers and therapeutic targets. This study aimed to evaluate the expression of PD-1, PD-L1, CTLA-4, CD200, and CD200R molecules on CD4+ T cells, CD8+ T cells, and CD19+ B lymphocytes in prepubertal girls diagnosed with VLS. Additionally, the concentrations of their soluble forms and the levels of proinflammatory cytokines, including IL-2, IL-6, and TNF-α, in serum were determined to assess their potential as diagnostic biomarkers. The study included patients with VLS (study group) and healthy children (control group). The expression of checkpoints was analyzed using flow cytometry, while the concentrations of soluble forms and cytokines were determined using the enzyme-linked immunosorbent assay (ELISA) technique. Statistical significance tests and Spearman's rank correlation analysis were used. Patients with VLS showed markedly higher serum C-reactive protein (CRP) levels compared with healthy controls (49.99 ± 6.09 mg/L vs. 2.70 ± 0.96 mg/L, $p < 0.001$). A significant increase in checkpoint expression was observed on lymphocyte subsets, including CD4+ T cells expressing PD-1 (4.90 ± 1.67% vs. 0.85 ± 0.56%, $p < 0.001$) and CTLA-4 (11.58 ± 4.70% vs. 0.96 ± 0.48%, $p < 0.001$), as well as CD8+ T cells expressing PD-1 (17.31 ± 4.81% vs. 0.76 ± 0.67%, $p < 0.001$) and CD19+ B cells expressing PD-L1 (16.10 ± 9.50% vs. 1.41 ± 0.45%, $p < 0.001$). Soluble checkpoint molecules were consistently elevated, for example, sPD-1 (26.69 ± 3.88 pg/mL vs. 4.40 ± 0.75 pg/mL, $p < 0.001$) and sCTLA-4 (43.96 ± 3.77 pg/mL vs. 5.09 ± 1.09 pg/mL, $p < 0.001$). Similarly, cytokine levels were significantly increased in VLS patients, including interleukin-2 (28.80 ± 6.36 pg/mL vs. 4.32 ± 1.33 pg/mL, $p < 0.001$), interleukin-6 (25.35 ± 7.52 pg/mL vs. 2.35 ± 0.78 pg/mL, $p < 0.001$), and tumor necrosis factor alpha (31.26 ± 3.10 pg/mL vs. 12.80 ± 1.30 pg/mL, $p < 0.001$). Correlation analyses confirmed significant positive associations between cytokine concentrations and checkpoint expression, highlighting their interdependence in VLS immunopathogenesis. The

obtained results confirm an increased immunoactivation profile in children with VLS, characterized by elevated checkpoint expression and increased levels of proinflammatory cytokines. The studied parameters show potential as diagnostic and prognostic biomarkers, which may constitute the basis for the development of new diagnostic tools and targeted therapeutic strategies in VLS in pediatric patients.

Pediatric Vulvar Lichen Sclerosus: Is a One-Size-Fits-All Prolonged Induction Therapeutic Regimen Effective? A Referral Center Experience

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Study objective: To evaluate the efficacy and safety of a prolonged 6-month induction regimen using ultrapotent topical corticosteroids and daily emollient in the treatment of pediatric vulvar lichen sclerosus (pVLS). **Results:** Symptom remission was achieved in 83% of patients, with marked reductions in itching from 80% (T0) to 13% (T2), *p*<0.001 and burning from 36% (T0) to 8% (T2), *p*<0.001. Dysuria, dyschezia, and nocturnal awakenings resolved completely by the T1 follow-up. Significant improvements in clinical signs were observed in vulvar area. Improvements in perianal signs were more modest but statistically significant for fissures/erosions ($p < 0.001$) and hyperkeratosis/lichenification ($p = 0.018$). No significant changes were observed in anatomical alterations. Mild, self-limiting side effects were reported in 8% of patients at T1 and in only 1% at T2. No serious adverse events occurred. **Conclusion:** A prolonged induction regimen with ultrapotent topical corticosteroids demonstrates high efficacy with a substantial symptom and sign resolution and favorable safety profile.

Clinical spectrum and quality of life burden of vulvar lichenoid dermatoses: a cross-sectional study of 1,177 patients

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Background: Vulvar lichen sclerosus (VLS), erosive vulvar lichen planus (EVLP), and vulvar lichen simplex chronicus (VLSC) are the most common vulvar lichenoid dermatoses. They are frequently misdiagnosed in clinical practice and comparative studies among them remain limited. **Objectives:** To analyze the clinical characteristics and quality of life (QoL) burden among these three conditions, raising awareness on these distressing vulvar diseases. **Results:** This study included a total of 1,177 patients, comprising 682 patients with VLS, 429 patients with VLSC, and 66 patients with EVLP. The predilection sites varied among three diseases: the labia minora along with interlabial sulcus in VLS; the labia majora along with interlabial sulcus in VLSC; the labia minora along with vaginal opening in EVLP. A total of 941 patients were assessed using the DLQI. The median DLQI scores were 6.0 for VLS, 7.0 for VLSC, and 7.0 for EVLP, indicating a moderate effect on QoL. The remaining 236 patients were evaluated using the VQLI. The median VQLI scores were 12.0 for VLS, 13.0 for VLSC (indicating a mild impact on QoL), and 19.0 for EVLP, reflecting a moderate impact. The most affected domains included symptoms, feelings and emotions, and future health concerns (VLS and VLSC) or sex function (EVLP). **Conclusions:** Clinicians and patients should pay more attention to vulvar lichenoid dermatoses, especially EVLP. Early diagnosis and treatment to improve clinical symptoms and relieve discomfort is essential to enhance the QoL.

Vulvar lichen sclerosus-lichen planus overlap: A case series with diagnostic and management implications

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Erosive vulvovaginal lichen planus (EVVLP) and vulvar lichen sclerosus (LS) are chronic, immune-mediated dermatoses affecting the vulvovaginal region. LS typically presents with pruritus, atrophic white plaques, and progressive scarring, usually sparing the vagina.[1] EVVLP, in contrast, involves painful mucosal erosions of the vulva and vagina, sometimes resulting in vaginal stenosis.[2] Some patients exhibit overlapping clinical and histologic features, termed LS/lichen planus (LP) overlap syndrome. This overlap is not new but remains underappreciated, and recognizing it, particularly in patients with known LS, is critical given the potential for more severe disease and consideration of systemic therapy.

This retrospective study identified patients seen in the vulvar dermatology clinic with International Classification of Diseases-coded diagnoses of both LS (L90.0) and LP (L43). Only patients with vulvar involvement of both conditions were included.

Thirteen patients met clinical and/or histological criteria for vulvar LS/LP overlap (Table I). The mean age was 69.2 years (SD 8.7), later than the typical onset for LS or EVVLP.[1,3] All patients had vaginal LP involvement. Oral LP was found in six patients (46.2%) and lichen planopilaris in 4 (31%). Four patients had autoimmune comorbidities, including Hashimoto's thyroiditis, Sjögren's, psoriasis, and celiac disease.