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Vulvodynia

Utilizing multimodal physical therapy for women complaining of sexual pain: a clinical perspective
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Female sexual pain, or dyspareunia, has any number of culpable etiologies. When considering chronic vulvar or superficial pain associated with vulvodynia, symptoms can be localized to pain only at the vulva, as in provoked vestibulodynia (PVD), or generalized, creating pain throughout the perineum and/or beyond, as in generalized vulvodynia. The etiology can be quite varied, including issues related to structure, inflammation, infection, neoplasm, neurology, or trauma as well by iatrogenic causes, or hormonal insufficiencies.[1] The diagnosis of "vulvodynia" is listed in both the ICD10 (code 94.819) and the DSM-5-TR, where it is included in the diagnosis of genito-pelvic pain/penetration disorder (GPPPD) and described as "persistent or recurrent difficulties with one (or more) of the following: vaginal penetration during intercourse; marked vulvovaginal or pelvic pain during vaginal intercourse or penetration attempts; marked fear or anxiety about vulvovaginal or pelvic pain in anticipation of, during, or as a result of vaginal penetration; marked tensing or tightening of the pelvic floor muscles during attempted vaginal penetration" and having persisted for "a minimum duration of approximately 6 months" as well as "cause clinically significant distress in the individual…not better explained by a nonsexual mental disorder or as a consequence of a severe relationship distress (e.g., partner violence) or other significant stressors and is not attributable to the effects of a substance/medication or another medical condition".[2] Likewise, complaints of deep dyspareunia have been attributed to gynecologic conditions, nongynecologic conditions, central sensitization and GPPPD, or some combination of the above.[3] Alternative precursors include psychosocial issues, including anxiety, past sexual abuse, or vaginismus. This perspective will discuss clinical approaches gleaned from the author following nearly 30 years of practice specializing in the treatment of women with chronic vulvar pain (CVP) prior to retirement in 2017. Its focus will deal primarily with multimodal physical therapy, defined as clinical use of multiple physical therapy modalities, and its application to the treatment of dyspareunia associated with CVP or localized PVD, the most prominent subtype of vulvodynia.

Vulvodynia and Chronic Vulvar Pain: Influencing Factors and Long-Term Success After Therapeutic Local Anesthesia (TLA)

Axel Gerhardt, Manuel Feisst, et al.

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https://pubmed.ncbi.nlm.nih.gov/40178796/

Introduction: Vulvodynia is a debilitating sexual disorder with a high prevalence of 7-11%. In the study reported here, we analyzed long-term results from a prospective, non-controlled observational study to enhance our understanding of the success of therapeutic local anesthesia (TLA) and to investigate factors that predict a response or failure of therapy, with the overall aim to gain new insights into the complex medical condition of vulvodynia. **Results:** Of the 45 patients originally diagnosed with vulvodynia, 38 were available for follow-up (32 of the original 36 responders, and 4 of the 9 non-responders). The average follow-up period was 7.9 years (95.2 months, range 55-156 months) after the end of therapy. All responders remained symptom-free, and two of the non-responders also became responders. Factors associated with non-response were: the number of physicians seen previously, lichen sclerosus, previous traumata, relapses of recurrent cystitis, corticoid therapy, and psychological factors, including depression, psychotropic drug intake, and psychotherapy. Body mass index (BMI) was lower in non-responders. The number of deliveries, cesarean sections, abortions, age, hormonal status, other medication intake, and gynecological surgeries had no impact on the results. **Conclusion:** The long-term success of TLA supports the hypothesis that neuralgia of one or more nerves of the pelvic floor is an important component in the development of vulvodynia. This study provides evidence for the long-term effectiveness of TLA in women with vulvodynia, as well as potential obstacles to healing. Despite limitations imposed by a monocentric, non-controlled observational design, the robustness of this investigation lies in the long observation period after treatment and the substantial percentage of patients for whom TLA was successful. The long-term results emphasize the necessity of a holistic approach integrating the view of vulvodynia as a peripheral neuro-functional disorder.

Coping with Vestibulodynia and Its Impacts on the Identity of Jewish National Religious Women

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This research aims to better understand the experiences of Jewish National Religious women who suffer from vestibulodynia, a medical condition characterized by pain during sexual intercourse. The study explores the distinctive challenges of these women, as they navigate the tension between expressions of sexuality in modern secular Western culture and that of religious Jewish Halacha. The study delves into perceptions of sexuality, religion, culture, and identity as effected by vestibulodynia. This qualitative research involved interviews with 15 married National Religious women aged 21-38 diagnosed with vestibulodynia. The study yielded four central themes: Isolation vs. Community; Recognition Within the Medical System; The Multifaceted Aspects of Female Identity; From Crisis to Growth. The research highlights the implications vestibulodynia can have on women coping with it, reflecting in reduced self-esteem, and challenges in female identity and the identity as a whole, in intimate relationships, and in family and cultural life. the study stresses the important role the partners have in coping with vestibulodynia. The research emphasizes the importance of culturally sensitive care needed in women's health care services. It further stresses the positive impact of belonging to peers and the importance of open communication regarding sexuality, even in orthodox communities.

Experiences of Care and Gaslighting in Patients With Vulvovaginal Disorders
Chailee F Moss, Arthi Chinna-Meyyappan, et al.
JAMA Netw Open. 2025 May 1;8(5):e259486. doi: 10.1001/jamanetworkopen.2025.9486.
https://pubmed.ncbi.nlm.nih.gov/40338544/

Importance: Medical gaslighting, in which a patient's concerns are dismissed without proper evaluation, has been described anecdotally in vulvovaginal patient care, but has not been quantified. **Objective:** To use a patient-centered instrument to measure adverse experiences in vulvovaginal care. **Design, setting, and participants:** Common themes from National Vulvodynia Association patient testimonials were used to design a mixed-methods measure of patient experience that included both quantitative and qualitative questions. An instrument was created and submitted to officers from the National Vulvodynia Association and Tight-Lipped, another patient advocacy organization, for feedback. The measure was then completed by patients before their first appointment at a vulvovaginal disorder referral clinic from August 2023 to February 2024. **Exposure:** Participation in the survey. **Main outcomes and measures:** The primary outcome was the incidence of reported clinician behavior and consequent distress as reported on the survey instrument. Quantitative data were analyzed using simple descriptive statistics (mean [SD], median [IQR], and percentage). Narrative responses provided by patients were analyzed using the clinical-qualitative method for content analysis. **Results:** A total of 520 patients completed surveys; 5 were eliminated because the patient was younger than 18 years, 6 were eliminated for duplication, 6 were eliminated because they had no past clinician, and 56 were eliminated for completely blank responses. Thus, surveys of 447 patients (mean [SD] age, 41.7 [15.2] years) were analyzed (86% response rate). Patients had a mean (SD) of 5.50 (4.53) past clinicians. Patients reported that a mean (SD) of 43.5% (33.9%) of past practitioners were supportive, 26.6% (31.7%) were belittling, and 20.5% (30.9%) did not believe the patient. In total, 186 patients (41.6%) were told they just needed to relax more, 92 (20.6%) were recommended to drink alcohol, 236 (52.8%) considered ceasing care because their concerns were not addressed, 92 (20.6%) were referred to psychiatry without medical treatment, 72 (16.8%) felt unsafe during a medical encounter, and 176 (39.4%) said they were made to feel crazy, the most distressing surveyed behavior (rated at a mean [SD] of 7.39 [3.06] of 10 on a numerical rating scale of distress). A total of 1150 quotations were analyzed qualitatively; common themes included lack of clinician knowledge (247 quotations) and dismissive behaviors (211 quotations). **Conclusions and relevance:** In this cross-sectional study, a patient-centered measure of adverse experiences in vulvovaginal care was developed. Participants reported common past experiences with gaslighting and substantial distress; they frequently considered ceasing care. There is an urgent need for education supporting a biopsychosocial, trauma-informed approach to vulvovaginal pain and continued development of validated instruments to quantify patient experiences.

Chronic Pelvic Pain

Assessing comfort levels with female sexual dysfunction among medical residents: a nationwide cross-sectional survey study and its implications for medical education
Mariah Milazzo, Abigail Kohut-Jackson, et al.
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https://pubmed.ncbi.nlm.nih.gov/40221919/

Background: Female sexual dysfunction (FSD) affects 30%-50% of women but is substantially underdiagnosed and undertreated due in large part to the fact that just half of US medical schools offer

formal sexual health teaching with an overwhelming skew toward male sexual health. **Aim:** The aim of this study is to assess the knowledge and confidence of residents in conducting a comprehensive pelvic examination and their comfortability diagnosing and managing conditions of FSD. **Results:** In total, n = 128 residents completed the survey. Less than half of all respondents indicated they had received prior formal training in physical exam of the clitoris (23%), vulvar vestibule (45%), and pelvic floor (35%). Regarding FSD, the following percentage of respondents indicated they had received training in these conditions: 78% genito-pelvic pain/penetration disorder, 38% hypoactive sexual desire disorder, 23% female orgasmic disorder, and 30% female sexual arousal disorder. The majority of respondents reported feeling uncomfortable with diagnosis and management of these conditions. **Clinical implications:** Improving residents' ability to diagnose and treat FSD is essential for preparing the next generation of physicians to appropriately attend to the needs of female patients. **Strengths and limitations:** One limitation of this study is the low survey response rate despite outreach to all relevant US residency programs. Additionally, our study did not account for the potential impact of different educational backgrounds on respondents' comfort levels with FSD, which could be addressed in subsequent research. A major strength of this study is being the first study to survey residents across specialties about their knowledge of FSD. **Conclusion:** Residents across several specialties are uncomfortable with diagnosing and managing common FSDs owing to a lack of training in both pelvic examination and conditions of FSD.

Deep and Superficial Dyspareunia Questionnaire: a patient-reported outcome measure for genito-pelvic dyspareunia

Nisha Marshall, Samantha L Levang, et al.

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https://pubmed.ncbi.nlm.nih.gov/40062466/

Introduction: Dyspareunia affects 8%-22% of women worldwide and an unknown number of gender-diverse people. Dyspareunia is commonly categorized into deep and superficial subtypes based on pain location and underlying etiology; however, current assessment tools inadequately differentiate between pain locations. **Aim:** This study aimed to develop a patient-reported outcome measure (PROM) that independently assesses deep and superficial dyspareunia and its psychosocial correlates: the Deep and Superficial Dyspareunia Questionnaire (DSDQ). **Outcomes:** Generated items, validity, factor structure. **Results:** Fifty-nine pre-existing measures were reviewed to generate an initial pool of 163 items. Items created were categorized into domains for characteristics (pain quality, timing, location, and intensity) or psychosocial correlates (impact of pain on cognitions, affect, sexuality, and behavior). The eDelphi modified 40 items, added 23, and excluded 10. After the final review, 175 items were approved for psychometric analysis. The EFA supported a 103-item, 6-factor model. The CFA supported a 45-item, 6-factor model. Factors included: (1) Vaginal Opening Pain; (2) Deep Vaginal/Pelvic/Abdominal Pain; (3) Pain Interference; (4) Affect and Cognitions Related to Provoked Pain; (5) Sexual Distress Related to Sexual Well-being; and (6) Pain Self-efficacy. **Clinical implications:** The DSDQ will aid diagnosis, treatment, and assessment of dyspareunia changes over time in research and clinical settings. **Strengths and limitations:** Strengths of this work include DSDQ co-development with patient partners, multidisciplinary clinicians, and researchers, as well as the rigorous mixed-methods development. Limitations include demographic and clinical homogeneity of the patient samples and sample sizes for the EFA and CFA. **Conclusions:** The DSDQ is a 45-item measure intended to assess deep and superficial dyspareunia. Future psychometric evaluation will further establish validity and reliability evidence.

High-impact Chronic Pain in a Cohort of Urologic Chronic Pelvic Pain Syndrome Patients: A Retrospective MAPP Research Network Study
Tianyi Wang, Rachel Bergmans, et al.
Clin J Pain. 2025 Apr 1;41(4):e1275. doi: 10.1097/AJP.0000000000001275.
https://pubmed.ncbi.nlm.nih.gov/39881480/

Objectives: An emerging concept in the chronic pain literature, high-impact chronic pain (HICP), refers to pain that occurs very frequently and results in major disruption of daily life. Previous epidemiologic investigations have noted that lower educational attainment, age, and race appear to be associated with the frequency of HICP, but condition-specific investigations of HICP have been less common.
Results: Participants were 476 urologic pelvic pain syndrome (UCPPS) patients, 64% of whom were female. Of these, 22% were classified as having HICP based on responses to several questions about pain interference in daily life. We confirmed that African American individuals and those with lower educational attainment were more likely to experience HICP (both P <0.05). In addition, those with HICP demonstrated much greater levels of disability, genitourinary pain, urinary symptoms, widespread pain, and pelvic floor tenderness and were more likely to experience pain in response to consuming standardized amounts of water (all P <0.05). Binary logistics regression showed that genitourinary pain, widespread pain, and race were the strongest predictors of pain in multivariate models. Furthermore, HICP status was associated with more self-reported health care utilization over the subsequent 18 months (P <0.05). **Discussion:** These findings suggest that HICP affects more than 1 of 5 UCPPS patients, with significant associated morbidity. Demographic and clinical characteristics associated with HICP may be useful for identifying at-risk UCPPS patients.

Chronic pelvic pain and botulinum toxin
Barbara Illowsky Karp, Pamela Stratton
Toxicon. 2025 Apr:258:108336. doi: 10.1016/j.toxicon.2025.108336. Epub 2025 Mar 26.
https://pubmed.ncbi.nlm.nih.gov/40154844/

Botulinum toxin is being explored as a treatment for chronic pelvic pain, a major cause of suffering and disability in both women and men worldwide. For chronic pelvic pain in women, botulinum toxin may be injected into pelvic floor muscles such as levator ani and obturator internus. For pain associated with genitopelvic penetration disorders (vaginismus, vestibulitis, and vulvar pain, bulbospongioussus and ischiocavernosus may be treated. There have been numerous uncontrolled studies of botulinum toxin for chronic pelvic pain in women showing benefit, however, the few randomized controlled clinical trials published to date have given equivocal results. Chronic pelvic pain in men often implicates the prostate gland, so that the condition is commonly called "chronic prostatitis/chronic pelvic pain syndrome." There are only a handful of clinical trials for male chronic pelvic pain, each using a different site of injection; some with promising results. This paper discusses the use of botulinum toxin in the treatment of chronic pelvic pain in men and women.

Chronic Pelvic Pain in Women: Evaluation and Treatment
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Am Fam Physician. 2025 Mar;111(3):218-229.
https://pubmed.ncbi.nlm.nih.gov/40106288/

Chronic pelvic pain affects up to 26% of individuals with female anatomy and is defined as at least 6 months of pain that is perceived to originate in the pelvis. Chronic pelvic pain is highly correlated with psychosocial comorbidities, including depression, anxiety, and history of abuse. Although common causes include irritable bowel syndrome, bladder pain syndrome (interstitial cystitis), pelvic floor dysfunction, and endometriosis, chronic pelvic pain is most often the result of multiple coexisting pain conditions and central nervous system hypersensitivity. Evaluation requires a biopsychosocial approach, beginning with a complete history and physical examination to ensure an accurate and timely diagnosis. Diagnostic laboratory and imaging tests are of limited utility and should be tailored to investigate presenting symptoms and examination findings. When a single etiology is identified, treatment should follow disease-specific guidelines; otherwise, the management of undifferentiated chronic pelvic pain should follow an interdisciplinary approach to improve function and quality of life. Multimodal treatment includes pain education, self-care, behavioral therapy, physical therapy, and pharmacotherapy, with limited indications for surgical interventions. Regular follow-up to review progress is necessary. Clinicians should have a low threshold for referral to interdisciplinary pain management or other subspecialties when improvement is not seen.

Application of International Society for the Study of Women's Sexual Health consensus algorithm for persistent genital arousal disorder/genito-pelvic dysesthesia to 10 cases and use of epidural spinal injections as long term management

Hannah Ahrendt, Salim Hayek, et al.

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https://pubmed.ncbi.nlm.nih.gov/40041302/

Introduction: Persistent genital arousal disorder/genito-pelvic dysesthesia (PGAD/GPD) is a debilitating, but poorly understood disorder. To address the lack of knowledge regarding mechanism and treatments, the International Society for the Study of Women's Sexual Health (ISSWSH) consensus statement proposed a region-based approach for management of PGAD/GPD, including possible etiologies. Annular tears of the lumbar intervertebral disc are a recently acknowledged etiology of PGAD/GPD, and current evidence suggests that management of symptomatic tears resistant to non-invasive treatment may require lumbar endoscopic spinal surgery. **Aim:** This case series offers 10 cases of PGAD/GPD symptoms, in order to describe resource efficient management, including use of epidural spinal injections to reduce barriers to care for this debilitating condition. **Results:** Half of the patients tried three or more treatments before finding any symptomatic relief. Two patients, with annular tears evident on magnetic resonance imaging (MRI), found complete relief with epidural spinal injections. A patient with hypertonic pelvic floor found total relief with pelvic floor physical therapy. Two patients found alleviation of symptoms with discontinuation of triggering medications, and four patients had palliation of symptoms with gabapentin and/or pregabalin. **Conclusion:** These cases demonstrate the utility of the ISSWSH consensus algorithm in guiding initial diagnosis and treatment of PGAD/GPD. However, flexibility is important in management to choose the appropriate treatment pathway to provide the most effective symptom management. Current evidence suggests the use of epidural spinal injections for temporary symptom relief, however, this case series suggests its use for long term management.

Genitourinary Syndrome of Menopause/Vulvovaginal Atrophy

Efficacy of a Mixed Wavelength Laser for Vaginal Health in Postmenopausal Women: A Randomized Controlled Trial

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https://pubmed.ncbi.nlm.nih.gov/40061287/

Background: *Genitourinary* syndrome of menopause (GSM) is a chronic and progressive condition. The adverse events (AEs) and contraindications of hormonal therapy have generated interest in vaginal laser treatment. The non-ablative wavelength 1540 nm (GaAs) in this mixed laser synergistically enhances the 10,600 nm (CO_2) effect, providing a deeper hyperthermic stimulation of collagen and elastin without damaging the superficial layers. This results in fewer AEs, and reverses vaginal atrophy (VA) while reducing the 10,600 nm laser power to 5W. The aim of the study is to evaluate the efficacy and safety of a mixed-wavelength laser in alleviating GSM symptoms compared to sham. **Patients and methods:** A randomized single-blind sham-controlled trial was conducted. 31 postmenopausal women with Vaginal Maturation Value (VMV <50%) were randomized into laser or sham intervention groups, receiving three monthly treatments. VMV, vaginal pH, and GSM symptoms severity were measured at 3- and 9-months post-intervention, and AE were assessed. **Results:** 27 patients completed the study; 14 were randomly assigned to the laser and 13 to the sham group. At 3 months, VMV improved by 12.4% compared to the sham group (P= 0.033), indicating a significant reversal of VA and a significant patient global improvement (P=0.030). At 9 months, dyspareunia decreased significantly (P = 0.049), while other symptoms and patient satisfaction demonstrated a significant improvement trend. However, VMV in the laser group returned to baseline values. Vaginal pH remained unchanged. The laser intervention was well tolerated, with mild and self-limited AEs. **Conclusion:** The mixed wavelength laser enables a reduction of 10,600 nm laser power, enhancing its safety profile while achieving promising outcomes in GSM. It is a safe, well-tolerated, and effective alternative for GSM treatment when conventional therapies fail. Further studies with larger samples, varied settings, and extended follow-up are needed to assess its long-term efficacy and side effects.

Hyaluronic acid injection to treat symptoms of vulvovaginal atrophy in postmenopausal women: A 12-week randomised, placebo-controlled, multicentric study

Fabienne Marchand Lamiraud, Hichem Bensmail, et al.

Maturitas. 2025 Apr 12:197:108264. doi: 10.1016/j.maturitas.2025.108264.

https://pubmed.ncbi.nlm.nih.gov/40273666/

Objective: To evaluate the efficacy and safety of a single injection session of cross-linked hyaluronic acid gel for vulvovaginal atrophy, versus placebo. **Design:** Two-step study comprising a 12-week randomised, placebo-controlled, single-blind phase, followed by an open-label phase. Eligible postmenopausal women with vulvovaginal atrophy were randomised (2:1) to a single injection session of either hyaluronic acid or placebo. This is the report of the single-blind phase. **Main outcome measures:** The primary outcome was the mean change in the severity score for the most bothersome symptom at 12 weeks compared with baseline. Secondary outcomes included differences in scores for individual vulvovaginal atrophy symptoms, score on the Female Sexual Function Index and vaginal pH. **Results:** A total of 116 of the 117 patients in the randomised population contributed outcome data to the study (79 receiving hyaluronic acid and 37 placebo). Compared with baseline, the mean score for the severity of

the most bothersome symptom was significantly reduced in the hyaluronic acid arm at 12 weeks (between-group difference [95 % confidence interval]: -0.58 [-1.01; -0.16], p = 0.008). Similarly, there were significant reductions in mean scores for dryness (-0.87 [-1.27; -0.47]; p < 0.001) and dyspareunia (-0.65 [-1.09; -0.21]; p = 0.004) and improvement in score on the Female Sexual Function Index (3.81 [0.91; 6.72]; p = 0.011) in the hyaluronic acid group. There were no differences in itching/irritation, pain or vaginal pH in either group. Hyaluronic acid treatment was well tolerated. **Conclusions:** A single injection session of cross-linked hyaluronic acid is effective in reducing vulvovaginal symptoms and sexual dysfunction compared with placebo at 12 weeks, making it a suitable management option for moderate to severe vulvovaginal atrophy symptoms.
Trial registration: NCT04219722 (https://clinicaltrials.gov/study/NCT04219722).

CO_2 Laser Therapy for Genitourinary Syndrome of Menopause in Women with Breast Cancer: A Randomized, Sham-Controlled Trial
Sireen Jaber, Gabriel Levin, Maya Ram-Weiner, Ahinoam Lev-Sagie
Cancers (Basel). 2025 Apr 6;17(7):1241. doi: 10.3390/cancers17071241.
https://pubmed.ncbi.nlm.nih.gov/40227835/

Objectives: We aimed to study the efficacy of fractional CO_2 laser for genitourinary syndrome of menopause (GSM) symptoms in breast cancer (BC) survivors through a randomized, sham-controlled study, followed by an open-phase study assessing the impact of additional treatments. **Results:** Thirty-four BC survivors were randomized to laser (n = 19) or sham (n = 15) treatments. Dyspareunia and intercourse dryness scores improved in both groups one month post-treatment, without a significant advantage of laser over sham. The laser treatment resulted in a reduction in daily dryness (-1.30 ± 0.55, $p = 0.017$), an increase in vaginal hydration (3.24 ± 1.13, $p = 0.004$), and an increase in Vaginal Health Index (VHI) (2.26 ± 0.50, $p < 0.001$). Most participants (18/19 and 9/15, respectively) opted to continue laser treatments after unblinding, resulting in 27 patients receiving six laser treatments. Increasing the number of laser treatments was associated with a constant improvement in Visual Analogue Score (VAS) scores for dyspareunia, intercourse dryness, daily dryness, burning, discomfort, itch, and average VAS, as well as pH, VHI, and hydration. Conclusions Three fractional CO_2 laser treatments for BC survivors reduced daily dryness but did not improve dyspareunia and sexual dryness when compared to sham in this randomized trial. Increasing the number of treatment sessions seemed to improve outcomes; however, it remained clinically insufficient, even after six treatments.

A randomized trial on the safety and efficacy of sensate water-based and silicone-based personal lubricants for relief of intimate discomfort associated with vaginal dryness
Michael Krychman, Karishma Hemmady, et al,
J Sex Med. 2025 Apr 7:qdaf058. doi: 10.1093/jsxmed/qdaf058. Online ahead of print.
https://pubmed.ncbi.nlm.nih.gov/40192456/

Background: Personal lubricants with different formulations and properties, including ingredients designed to enhance sensation or feeling, can be used to alleviate vaginal dryness and affect sexual function. Clinical data to support their safety and efficacy are limited. **Aim:** Determine safety and efficacy of two sensate personal lubricants for relief of discomfort associated with vaginal dryness in female participants, and report the impact on sexual satisfaction in female participants and male partners.**Outcomes:** Primary outcome: change from baseline in total Female Sexual Function Index (FSFI) score after 4 weeks of lubricant use. Secondary outcomes: change from baseline in FSFI domain scores;

adverse events (AE); vulvovaginal and oral tolerance; female participant and male partner perception of lubricants; improvement in sexual intimacy (assessed using Subject Perceived Questionnaires [SPQ] and Patient Global Impression of Change). **Results:** Sixty-six female participants completed the study. The primary endpoint (prespecified increase in FSFI ≥4 points from baseline) was achieved for both lubricants. A positive change was observed across all six FSFI domains. All AEs were mild in severity; no serious AEs were reported; the discontinuation rate was 1.5% (one female participant; warming lubricant). For both lubricants, vulvovaginal tolerance was "good/very good" and oral tolerance was generally "very good" ("acceptable" for one participant in each treatment arm). For both lubricants, most female participants and their male partners agreed that first penetration during vaginal sex was smoother, and there was an improvement in sexual intimacy. **Clinical implications:** Safety and efficacy of both lubricants containing sensate ingredients was demonstrated, giving reassurance that they can be safely recommended by healthcare professionals to relieve vaginal dryness and enhance sexual pleasure. **Strengths/limitations:** Evidence is provided for the safety and efficacy of two sensate lubricants for relieving vaginal dryness and improving sexual pleasure in healthy participants across a wide age range. The SPQ is not a clinically validated tool, and the sample of participants was not diverse, which may limit the generalizability of data. **Conclusions:** The use of sensate lubricants showed significant improvement in sexual function coupled with improved satisfaction for both male and female participants. No severe or serious AE were reported during the study period.

An open, single center, clinical investigation to evaluate the efficacy and safety of a non-hormonal vaginal moisturizer for the symptomatic treatment of vulvovaginal atrophy in postmenopausal woman

Manuel Sánchez-Prieto, Nicolás Mendoza, et al.

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https://pubmed.ncbi.nlm.nih.gov/40323284/

Objective: To evaluate the efficacy and safety of a non-hormonal vaginal moisturizer in alleviating the clinical symptoms of vulvovaginal atrophy (VVA). **Results:** A statistically significant decrease was observed in the severity of the most bothersome symptoms from moderate at baseline (mean 2.47 ± 0.55) to mild after 4 weeks (mean 1.33 ± 0.58) and 12 weeks (mean 1.32 ± 0.74, $p < 0.0001$). VHI scores significantly improved after 4 and 12 weeks compared to baseline (from 11.70 to 16.36 at 4 weeks and 17.34 at 12 weeks, both $p < 0.0001$). Vaginal pH decreased significantly from a mean pH of 6.27 ± 0.46 at baseline to 5.77 ± 0.59 at 4 weeks and 5.56 ± 0.60 at 12 weeks of treatment ($p < 0.0001$). Total FSFI scores significantly increased, indicating improvement of sexual function, after 4 and then after 12 weeks of product use (Baseline score 20.16 compared to 24.27 at 4 and 23.94 at 12 weeks, both $p < 0.0001$). Quality of life improved (decrease of total Cervantes-SF scores) after 12 weeks of product use as compared to baseline (Baseline 32.09 vs 26.45, $p = 0.0004$). At 12 weeks, a 97.5% reported overall satisfaction with the product and no adverse events related to the product were reported.
Conclusion: Through limited size study, the proposed non-hormonal vaginal moisturizer demonstrated being effective and safe for the management of VVA symptoms in postmenopausal women, offering significant improvements in symptom severity, vaginal health, sexual function, and quality of life. There is a need for further research with a larger sample and comparison with other similar products.

Urinary microbiomes in postmenopausal women with or without urinary symptoms of the genitourinary syndrome of menopause: a cross-sectional study
Kitti Chattrakulchai, Pisut Pongchaikul, et al.
Sci Rep. 2025 Apr 14;15(1):12796. doi: 10.1038/s41598-025-97725-6.
https://pubmed.ncbi.nlm.nih.gov/40229501/

Some postmenopausal women suffer from genital and urinary symptoms, while others do not. Therefore, the hypoestrogenic status cannot entirely explain the occurrence of the genitourinary syndrome in menopause (GSM). Differences in the urinary microbiome might play a role in bladder function and vulnerability to urinary symptoms. This study aimed to compare characterization urinary microbiome in postmenopausal women who experienced GSM with urinary symptoms with that in those without urinary symptoms. Forty participants were screened for genital symptoms of GSM and then divided into the urinary symptoms group and the non-urinary symptoms group on the basis of a validated questionnaire. 16 S rRNA gene sequencing was performed to investigate microbial diversity. The alpha diversity was used to evaluate the species richness and evenness, while the beta diversity was used to estimate the differences in the urinary microbiome between the groups. Differential abundance analysis was used to investigate biomarkers in the groups by linear discriminant analysis effect size. The relationship between the urinary microbiome and urinary symptoms was assessed using Spearman's correlation analysis. The characteristics of the participants were not different between the groups. Gardnerella was found in 22.2% (4/18) and 11.1% (2/18) of participants in the urinary symptoms group and in the non-urinary symptoms group, respectively ($p > 0.05$). Alpha diversity was less in the urinary symptoms group than in the non-urinary symptoms group, but this was not significant. Beta diversity of the urinary microbiome was not significantly different between the two groups. A differential abundance analysis showed that the genus Prevotella was significantly dominant in postmenopausal women with GSM who reported urinary symptoms. Prevotella was marginally correlated with voiding symptoms ($r^2 = 0.44$; $p = 0.01$). The bladder or urinary microbiome is closely related to urinary symptoms of GSM. Species richness and diversity are not significantly different between postmenopausal women with GSM with and without urinary symptoms. Prevotella is dominant in symptomatic women and slightly correlated with voiding symptoms.

Evaluation of the efficacy of injectable platelet-rich fibrin in genitourinary syndrome of menopause
Pelin Oyardı, Ülkü Mete Ural
J Turk Ger Gynecol Assoc. 2025 Mar 12;26(1):15-19. doi: 10.4274/jtgga.galenos.2024.2024-5-6.
https://pubmed.ncbi.nlm.nih.gov/40077950/

Objective: The aim of this study was to investigate the efficacy of injectable, platelet-rich fibrin (PRF) for the treatment of vaginal atrophy, also known as genitourinary syndrome of menopause (GSM), which may affect a third of a woman's lifespan. **Material and methods:** This study included postmenopausal patients who had symptoms of genitourinary syndrome, such as vaginal burning, dryness, itching, and sexual dysfunction. Injectable platelet-rich fibrin (i-PRF) was applied to three areas on the posterior vaginal wall twice, one month apart. The genitourinary symptoms of the patients were evaluated using the female sexual function index (FSFI) and sexual life quality questionnaire before and one and six months after the procedure. **Results:** Thirty-five patients were recruited with a mean age of 54.1±5.5 years. The analysis of the desire, arousal, lubrication, orgasm, satisfaction, pain, and total scores of the pre-procedural and post-procedural FSFI and sexual life quality questionnaire scores revealed significant improvements ($p<0.001$). **Conclusion:** i-PRF treatment provided advantages such as safe and easy application, autologous material nature, absence of procedure-related complications or side effects,

short procedure time, absence of the need for hospitalization, low cost, and a non-hormonal nature. These results suggest that injectable, PRF may be a promising treatment option in patients with symptoms of GSM. However, larger randomized controlled studies are needed to confirm and validate our findings.

A Novel Intrauterine Device for the Extended Tissue-Specific Release of Estradiol and Norethindrone to Treat the Genitourinary Syndrome of Menopause
Ahmed Abdelgader, Mershen Govender, Pradeep Kumar, Yahya E Choonara
Polymers (Basel). 2025 Feb 28;17(5):665. doi: 10.3390/polym17050665.
https://pubmed.ncbi.nlm.nih.gov/40076154/

The genitourinary syndrome of menopause (GSM) is a prevalent condition impacting a substantial number of women globally. Presently, the management of GSM typically entails the administration of estrogen via oral, dermal, or vaginal routes for a prolonged period of time. This study involves the development of a polymer-based hollow cylindrical delivery system loaded with estradiol hemihydrate (E2) for prolonged delivery to the uterine cavity (EPHCD) combined with a norethindrone acetate (NETA)-loaded polymeric matrix (NLPM), with both units placed onto an intra-uterine device to form a multi-component drug delivery system for the management of GSM (MCDDS). In developing EPHCD, a central composite design (CCD) was employed to evaluate and optimize the impact of formulation factors on EPHCD release and unit weight loss. The optimized EPHCD was further assessed for its chemical integrity, surface morphology, hydration characteristics, release behavior, ex vivo permeation and cytocompatibility. The optimized EPHCD, which featured a high drug load (10%) and low ethyl cellulose-to-polycaprolactone ratio (EC-to-PCL, 10%), demonstrated favorable attributes with a cumulative drug release and weight loss of 23.78 ± 0.84% and 2.09 ± 0.21%, respectively, over a 4-week testing period. The release kinetics were further noted to obey the Peppas-Sahlin model. Evaluation of MCDDS revealed an in vitro drug release comparable to the individual units, with permeation studies displaying an initial increase in the rate of flux for both drugs during the first 2 h, followed by a subsequent decrease. Moreover, the MCDDS components showed good cytocompatibility against NIH/3T3 cells, with cell viability of more than 70%. Upon evaluation of the MCDDS system, the results of this study highlight its potential as a viable sustained-release intrauterine platform for the treatment of GSM.

Efficacy of Fractionated Carbon Dioxide Laser for the Treatment of Genitourinary Syndrome of Menopause: A Systematic Review and Meta-analysis
Raquel Vizán-Chaguaceda, Raquel Leirós-Rodríguez, Pablo Hernandez-Lucas
Obstet Gynecol. 2025 May 1;145(5):475-485. doi: 10.1097/AOG.0000000000005885. Epub 2025 Mar 20.
https://pubmed.ncbi.nlm.nih.gov/40112298/

Objective: To evaluate the short-term effectiveness of fractional CO 2 laser for the treatment of genitourinary syndrome of menopause. **Data sources:** Systematic review was performed of PubMed, Scopus, Web of Science, Cinhal, MEDLINE, and ClinicalTrials.gov . **Methods of study selection:** The included studies had to meet the following criteria: 1) The sample consisted exclusively of women diagnosed with genitourinary syndrome of menopause; 2) at least one group in the sample underwent treatment with fractional CO 2 laser; 3) the control group received simulated fractional CO 2 laser therapy, topical hormonal treatment, or a topical gel lubricant; 4) the studies evaluated outcomes related to sexual function, urinary symptoms, or the quality of the vaginal epithelium; and 5) the study

design was a randomized controlled trial. The exclusion criterion specified that participants should not have a history of any type of cancer or prior treatment with a different type of laser. **Tabulation, integration, and results:** Two reviewers independently screened articles for eligibility and extracted data. Difference in mean differences and their 95% CIs were calculated as the between-group difference in means divided by the pooled SD. The I2 statistic was used to determine the degree of heterogeneity. The 11 articles included in the review had a group receiving fractional CO 2 laser therapy and a control group receiving simulated fractional CO 2 laser, topical hormonal treatment, or topical gel lubricant. The meta-analyses indicated that fractional CO 2 laser is effective for improving sexual function through increased sexual desire, arousal, lubrication, orgasms, and sexual satisfaction; reducing pain during sexual activity (standardized mean difference 0.51, P =.021); and improving urinary function by reducing the frequency and magnitude of urinary leakage and frequency of urination (standardized mean difference 0.51, P <.001). **Conclusion:** Fractional CO 2 laser is associated with statistically significant improvements in the short-term treatment of sexual and urinary symptoms but not vaginal epithelium quality. The clinical significance of these changes is unclear.

Feasibility of developing a new tool for assessing vaginal health in women with Genitourinary Syndrome of Menopause; The VAN study
Paula Briggs, Christopher Evans, et al.
Post Reprod Health. 2025 Apr 13:20533691251332321. doi: 10.1177/20533691251332321.
https://pubmed.ncbi.nlm.nih.gov/40221876/

Objectives: Genitourinary syndrome of menopause (GSM) is a common condition, yet there is no accessible, objective clinical method with which to make a diagnosis of vaginal changes associated with GSM. We undertook a feasibility study to assess suitability of different objective diagnostic methods and obtained quantitative scores using a new GSM Assessment Tool (NGAT) and vaginal maturation vlue (VMV). These scores were correlated with patient reported symptoms obtained via a questionnaire. **Study Design:** VAginal Health - What's Normal (VAN) Study is a prospective, observational, feasibility study, evaluating NGAT and VMV. Sixty women (12 healthy controls and 48 symptomatic) were recruited and had a baseline assessment. The symptomatic women were offered treatment and had a second assessment 16 weeks later. **Results:** Compared with control group, symptomatic women had higher NGAT and VMV scores at baseline. After treatment, in symptomatic women, symptoms improved and NGAT scores reduced, while the median value for VMV was unexpectedly reduced. **Conclusions:** This data suggests that clinical assessment and accurate recording of GSM can be supported by an objective scoring system, particularly in primary care and warrants adequately powered future studies to assess the utility of these methods in clinical and research setting.

The AUA/SUFU/AUGS Guideline on Genitourinary Syndrome of Menopause
Melissa R Kaufman, A Lenore Ackerman, et al.
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https://pubmed.ncbi.nlm.nih.gov/40298120/

Purpose: Genitourinary syndrome of menopause (GSM) describes the symptoms and physical changes that result from declining estrogen and androgen concentrations in the genitourinary tract during the menopausal transition. There has not been a consensus reached about the number or type of symptoms needed to diagnose GSM, and the associated urinary symptoms are also linked with other common urologic conditions (e.g., overactive bladder) in older patients. This guideline provides information to

clinicians regarding identification, diagnosis, counseling, and treatment for patients with GSM to optimize symptom control and quality of life while minimizing adverse events (AEs). **Results:** Clinicians diagnose GSM based on symptoms, with or without related physical findings, and after ruling out other etiologies or co-occurring pathologies. There is a large body of evidence examining the use of hormonal and non-hormonal treatment options to manage the symptoms of GSM; however, the local low-dose vaginal estrogen has the most robust evidence base. **Conclusion:** The strategies defined in this document were derived from evidence-based and consensus-based processes. Given that there is insufficient information to recommend one hormonal therapy over another, this guideline is not meant to support a stepwise progression through different hormonal approaches. The clinician should make treatment decisions in the context of shared decision-making considering patient goals and preferences, using the evidence of efficacy and AEs of each possible intervention as a guide.

Pudendal Neuralgia

Impact of laparoscopic pudendal nerve decompression on quality of life in patients suffering from pudendal neuralgia caused by entrapment syndrome
Irene Renda, Nathalie Manon, et al.
J Gynecol Obstet Hum Reprod. 2025 Apr 26;54(6):102963. doi: 10.1016/j.jogoh.2025.102963.
https://pubmed.ncbi.nlm.nih.gov/40294820/

Background: Pudendal neuralgia caused by entrapment syndrome (PNE) is an underdiagnosed condition with severe quality of life (QoL) impact. In cases unresponsive to medical treatment, a minimally invasive surgical approach, such as laparoscopic surgery, is preferred, particularly in patients presenting central sensitisation (CS) and myofascial syndrome (MS). Although the procedure has proven to be safe and feasible, limited studies examinate its impact on QoL. **Objectives:** This retrospective observational study was conducted at the Résilience Center, Axium Clinic, Aix-en-Provence, France, with the objective to assess QoL improvement and pain relief in PNE patients treated with laparoscopic pudendal neurolysis, focusing on those with CS. Secondary objectives included assessing the occurrence of surgical complications and improvements in urinary, intestinal and sexual functions. **Results:** The laparoscopic approach resulted safe and effective, showing significant improvements in VAS score (χ2:132.4,df=3,p < 0.001), QoL (χ2:133,df=3,p < 0.001), urinary (χ2:26.3,df=3,p < 0.001), intestinal (χ2:26.3,df=3,p < 0.001), and sexual functions (χ2:8.5,df=3,p < 0.001). MS and CS patients demonstrated diminished improvement scores. The implementation of a multidisciplinary approach significantly improved outcomes within these subgroups. A preoperative VAS score >8 was a significant risk factor for surgical failure (OR 19.2 for PGI, 14.2 for QoL, p < 0.001). **Conclusion:** A multidisciplinary approach aimed at reducing VAS score below 8 before surgery is recommended to optimize outcomes, particularly in CS patients.

The Golden Year? Early Intervention Yields Superior Outcomes in Chronic Pelvic Pain with Pudendal Neuralgia: A Comparative Analysis of Early vs. Delayed Treatment
Alexandru Ciudin, Albert Carrion, et al.
Life (Basel). 2025 Feb 27;15(3):376. doi: 10.3390/life15030376.
https://pubmed.ncbi.nlm.nih.gov/40141721/

Background: Chronic pelvic pain (CPP) associated with pudendal neuralgia (PN) significantly impacts quality of life (QoL). Pudendal nerve infiltration is a recognized treatment, but the optimal timing of

intervention remains unclear. **Results:** The early treatment group showed significantly greater reductions in VAS scores (5.4 vs. 3.4 points, $p < 0.01$) and QoL improvements (18 vs. 8 points, $p < 0.01$) compared to the delayed group. Early intervention reduced reinfiltration rates (10% vs. 35%, $p < 0.05$) and decreased medication use, with 81% discontinuing gabapentin compared to 41% in the delayed group. Similar trends were observed for tryptizol (44% vs. 35%) and tramadol (74% vs. 30%). Multivariate analysis confirmed time to treatment as the strongest predictor of outcomes, with each additional month delaying treatment associated with a 0.18-point increase in final VAS scores ($p < 0.001$). Delayed treatment was linked to higher final doses of gabapentin ($p = 0.01$), dexketoprofen ($p < 0.001$), and tramadol ($p = 0.012$). Minimal complications were reported (15%, Clavien I). **Conclusions:** Early intervention in PN significantly improves pain, QoL, and reduces reinfiltration and medication reliance, supporting timely treatment for optimal outcomes.

Dermatological Conditions

A randomized controlled trial to evaluate a novel dual laser therapy for vulvar lichen sclerosus: exploratory study assessing the impact of menopausal status
Irena Zivanovic, Marianne Gamper, et al.
Menopause. 2025 Mar 1;32(3):228-233. doi: 10.1097/GME.0000000000002478. Epub 2025 Feb 21.
https://pubmed.ncbi.nlm.nih.gov/39998969/

Objective: A randomized controlled trial showed that Neodymium:YAG/Erbium:YAG laser therapy was safe and significantly improved clinical outcomes and subjective symptoms of vulvar lichen sclerosus (LS). Most improvements were similar to those after the recommended first-line therapy with topical steroid. In this exploratory study, we wanted to analyze the impact of menopausal status on perception and treatment outcome. **Results:** Nineteen of the 66 study participants were premenopausal, 47 postmenopausal. At baseline, premenopausal women were significantly younger (39.4 vs 67.4 yr, P < 0.001), only a few applied local estrogen (16% vs 74%, P < 0.001), and their VSQ score was higher (9.58 vs 7.32, P = 0.015) indicating more severe vulvovaginal symptoms. Laser therapy objectively led to similar clinical improvements for pre- and postmenopausal women (-2.62 vs -2.23, P = 0.437), but subjectively to a significantly higher improvement of the VSQ score in postmenopausal women (-4.13 vs -1.08, P = 0.005). Postmenopausal women were more satisfied with laser therapy than premenopausal women (71% vs 46%, P = 0.002). **Conclusion:** Compared to premenopausal women, postmenopausal women experienced a lower subjective burden of the disease and a better subjective improvement after laser therapy. Perceptions and expectations are age-dependent and should be considered when treating women with lichen sclerosus.

Outcomes of Temperature-Controlled Radiofrequency in Treating Vulvar Lichen Sclerosus: A Pilot Study
Nengxiu Wu, Ying Li, Chaoqin Lin
Lasers Surg Med. 2025 Apr 18. doi: 10.1002/lsm.70016.
https://pubmed.ncbi.nlm.nih.gov/40249251/

Objective: This study aimed to evaluate the efficacy and safety of transcutaneous temperature-controlled radiofrequency (TTCRF) in the treatment of female vulvar lichen sclerosus (VLS).

Results: A total of 40 patients were included in the study, with a mean age of 44.98 ± 11.14 years and a mean BMI of 22.78 ± 2.62 kg/m². Follow-up results at 1 and 6 months Posttreatment showed significant improvements in pruritus degree, skin elasticity, and skin color compared to baseline ($p < 0.05$), although no significant change in lesion scope was observed. According to the PGI-C questionnaire, 75% (30/40) of patients reported improvement or significant improvement at 1 month Posttreatment, which decreased to 60% (24/40) at 6 months. No adverse reactions were reported during the treatment or follow-up periods. **Conclusion:** TTCRF is an effective and safe treatment for female VLS, offering significant short-term symptom relief. However, further research is needed to confirm long-term benefits.

Clinical Efficacy of 5-Aminolevulinic Acid Photodynamic Therapy Combined with Microneedling for Vulvar Lichen Sclerosus

Cuirong Xiao, Xiukuan Xu, et al.

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https://pubmed.ncbi.nlm.nih.gov/40345471/

Background: Vulvar lichen sclerosus (VLS) is a chronic inflammatory dermatosis with limited therapeutic options for refractory or recurrent cases. This study aimed to evaluate the efficacy and safety of 5-aminolevulinic acid photodynamic therapy (ALA-PDT) combined with microneedling in VLS management. **Results:** At 12 weeks, the total efficacy rate reached 92.19% (59/64). mLSSI scores significantly decreased from 9.07±2.32 to 2.42±1.79 ($P<0.001$), with erosion/fissure improvement being most pronounced (86.29% reduction). ISSVD grading showed complete resolution of severe cases (baseline: 85.94% vs. 0% post-treatment), with 90.63% downgraded to mild. Subgroup analysis revealed superior outcomes in patients with disease duration <1 year (baseline mLSSI: 7.68±2.29 vs. 9.97±1.87 in a long-duration group; $t=4.382$, $P<0.0001$), particularly in skin texture recovery (90.59% vs. 83.72%). DLQI scores decreased by 73.74% (15.04±2.80 to 3.95±2.02), and 88.89% (24/27) of patients reported dyspareunia relief (VAS: 5.64±2.58 to 1.50±1.63). Recurrence occurred in 21.88% (14/64) at 6 months, with no symptom exacerbation ($P>0.05$). Only 5 cases (7.81%) experienced transient erythema, and no severe adverse events were observed. **Conclusion:** ALA-PDT combined with microneedling achieves rapid and sustained symptom remission, improves quality of life, and demonstrates excellent safety in refractory VLS. Early intervention (disease duration <1 year) correlates with superior therapeutic outcomes. This combination therapy represents a promising strategy for PDT-enhanced VLS management.

The efficacy of microwave therapy combined with focused ultrasound or white spot ointment combined with infrared light in the treatment of female vulvar sclerotic lichen

Dan Lu, Huan Wang, et al.

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https://pubmed.ncbi.nlm.nih.gov/40128021/

This study aims to investigate the effectiveness of microwave therapy combined with focused ultrasound or white spot ointment combined with infrared light for treating vulvar sclerosing lichen in females. A retrospective study was conducted on 126 patients with vulvar lichen sclerosus admitted to our hospital between August 2020 and December 2022. The patients were divided into 3 groups: microwave treatment, focused ultrasound, and white spot paste combined with infrared light, each group consisting of 42 cases. The microwave treatment group underwent microwave coagulation using a

multifunctional microwave treatment machine, the focused ultrasound group received focused ultrasound treatment, and the white spot paste combined with infrared light group received traditional Chinese medicine white spot paste combined with infrared light irradiation. All groups received additional basic treatment. The study compared the serum levels of interleukin-2 (IL-2), tumor necrosis factor-alpha (TNF-α), C-reactive protein (CRP), human epidermal growth factor (EGF) levels, visual analog pain scale scores, and skin quality of life index (DLQI) scores before and after treatment in the 3 groups. Before treatment, there was no statistically significant difference in CRP and EGF levels among the 3 groups receiving IL-2 and TNF-α (all $P > .05$). After treatment, the levels of IL-2 and TNF-α did not show significant differences across the 3 groups. However, the levels of CRP and EGF were notably reduced, particularly in the group treated with white spot cream combined with infrared light, which exhibited lower levels compared to the other 2 groups with statistical significance (both $P < .05$). Similarly, prior to treatment, there were no statistically significant differences in symptomatology, daily activities, and interpersonal relationship scores among the 3 groups ($P < .05$). Post-treatment, scores for all dimensions significantly decreased in all groups, with the group receiving white spot cream combined with infrared light showing lower scores across all dimensions compared to the other 2 groups, with statistical significance ($P < .05$). The combination of vitiligo cream and infrared light has a significant effect on the treatment of sclerotic lichen of the external genitalia in gynecology. It can reduce the levels of inflammatory factors in the patient's body, improve itching, and improve quality of life.

Regenerative therapies in lichen sclerosus genitalis patients and possible efficacy in preventing squamous cell carcinoma development: a long-term follow-up pilot study

Marinella Tedesco, Barbara Bellei, et al.

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https://pubmed.ncbi.nlm.nih.gov/39969047/

Lichen sclerosus (LS) is a chronic scleroatrophic dermatosis of unknown etiology that usually affects the anogenital area and occasionally the extragenital sites, which has no definitive cure. LS patients are at higher risk of developing squamous cell carcinoma (SCC) in their lifetime compared to the general population. Through a retrospective study, we evaluated the impact of regenerative medicinebased therapies on SCC onset in the context of genital LS. LS patients treated in our institute from March 2013 to December 2022 were reviewed. A total of 319 patients, including 34 treated with adipose-derived stem cells (ADSCs) graft, 31 treated with ADSCs graft and PRP, and 254 treated with platelet-rich plasma (PRP) were identified. In parallel, data extracted from the histologic institutional database searching for SCC in the anogenital area were matched to surgical records. None of the 319 LS patients developed skin SCC in the anogenital area. Our data suggest that cellular and acellular therapies achieving therapeutic control prevent continuous tissue remodeling and its evolution and, therefore, neoplastic degeneration. Regenerative approaches are considered a valid strategy for treating LS patients symptomatic despite prolonged first-line medical treatment. Studying genital carcinogenesis of LS cases, we reported for the first time a protective role of PRP, ADSCs, and combined therapies. Thus, in terms of cancer prevention, we propose that regenerative therapies ameliorating disease control of non-responders to conventional therapy represent an important innovative tool.

Efficacy analysis of 5-aminolevulinic acid photodynamic therapy for vulvar lichen sclerosus in women of childbearing age
Lijuan Yang, Qian Shang, et al.
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https://pubmed.ncbi.nlm.nih.gov/40326818/

Objective: To investigate the efficacy and long-term durability of 5-aminolevulinic acid photodynamic therapy (ALA-PDT) in treating vulvar lichen sclerosus (VLS) in women of childbearing age. **Results:** At the 6-month follow-up, efficacy rates were 81.8% for pruritus relief, 67.3% for skin elasticity restoration, 63.6% for skin color improvement, and 72.7% for lesion area reduction. Pain was the only reported adverse reaction during treatment. **Conclusion:** 20% ALA-PDT is a safe, effective, and durable therapeutic option for VLS with minimal side effects. Notably, it provides a viable alternative for patients unresponsive to conventional therapies.

Challenges With Diagnosis of Labial Agglutination Due to Lichen Sclerosus
Esha Ghosalkar, Samantha Epstein, et al.
J Low Genit Tract Dis. 2025 Feb 10. doi: 10.1097/LGT.0000000000000874.
https://pubmed.ncbi.nlm.nih.gov/39928919/

Objective: Labial adhesion (LA) lacks a clear etiology but is associated with low estrogen levels and lichen sclerosus (LS). Genitourinary Syndrome of Menopause is a contributor due to low estrogen, needing surgical resection if symptoms persist after topical estrogen use. Early diagnosis and treatment of LS can decrease the risk of development of LA. The objective is to investigate LS prevalence as an etiological factor and evaluate the necessity for enhanced biopsy rates in LA patients. **Results:** A total of 11,875 women over the age of 18 were diagnosed with LA from 2000 to 2023. Of those, 3,673 (30.93%) underwent a surgical procedure on the female genital system within 2 years. Demographic data included a mean age of 45 years, 67.9% identified as White, 6.53% as Black/African American, 20.52% unknown, and 2.45% other races. Of the 3,673 total women, 11% had a documented biopsy prior to or with the surgery, leading to 11% (395 women) being diagnosed with LS. Limitations include inconsistent medical coding, uncertain causality between conditions, and potential data inconsistencies from the national database. **Conclusions:** Labial adhesion has a complex etiology, yet is associated with LS, emphasizing the need for biopsy in management when the first-line estrogen cream approach fails. Future studies on LA etiologies can improve approaches to female sexual health care disorders, enhancing patient care.

Cutting-edge insights: LC-OCT and 5% cyclosporine for early lichen sclerosus treatment
Caterina Mariarosaria Giorgio, Vittorio Tancredi, et al.
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https://pubmed.ncbi.nlm.nih.gov/40099353/

Dear Editor, Atrophic lichen sclerosus (ALS) is a chronic inflammatory dermatosis with significant morbidity, primarily affecting genital areas. The disease is often misdiagnosed or underdiagnosed, resulting in delayed treatment and progression to atrophic stages and permanent scars. While corticosteroids remain the first-line treatment, their long-term use may lead to adverse effects such as skin atrophy, prompting the need for alternative therapies. Cyclosporine, a calcineurin inhibitor, has shown efficacy in managing immune-mediated skin diseases and is delivered effectively through the Pentravan® vehicle.

Treatment of lichen sclerosus and vulvar dysplasia with laser therapy

Gina Mohmand, Sygehus Sønderjylland, et al.

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https://www.researchgate.net/publication/390503187_Treatment_of_lichen_sclerosus_and_vulvar_dysplasia_with_laser_therapy

A case of lichen sclerosus in an octogenarian complicated with vulvar dysplasia is presented. After four treatments with CO2 laser her symptoms were relieved, vulvar biopsies were normalized and photodocumentation before and after treatment of her skin is shown. **Introduction:** Vulvar lichen sclerosus is a chronic cutaneous disorder that affects approximately one in 70 women. Symptoms may include intense itching, pain, burning, and severe dyspareunia. The typical lesions are white plaques and papules, often with areas of ecchymosis, excoriation, and ulceration, with destruction of the vulvar architecture. Four to seven percent of women with vulvar lichen sclerosus develop vulvar carcinoma. The histopathological changes of vulvar lichen sclerosus are characteristic, making biopsy an indispensable diagnostic tool. Laser therapy is increasingly used as a treatment for dysplasia, but there is limited evidence for its use in vulvar dysplasia combined with lichen sclerosus. We present a case that highlights both the efficacy and the challenges that arise with the use of this treatment modality. This case contributes to the understanding of alternative therapeutic options for complex gynecological conditions. **Case history:** An octogenarian woman was referred with long-standing vulvar complaints, including pain, itching, burning, infection and ulceration. Previous treatments included surgery for vulvar dysplasia (VIN 3) in 2020, followed by recurrent treatment with lymphadenectomy in 2022. The aftermath was complicated by wound infection and fluid accumulation in the vulvar area. Biopsy showed irregular hyperplasia and moderate atypia with a diagnosis of high-grade squamous intraepithelial lesion (HSIL) with dVIN in 2024. The patient also had urinary problems, which were treated with intermittent catheterization due to agglutinated genital hiatus. Treatment with Aldara® (imiquimod) was initiated, but discontinued after a few days due to significant side effects of burning sensation and pain. The patient then received CO2 laser therapy, four treatments in total with 4-6 weeks interval (Fig.1). The treatment relieved the woman from symptoms and a biopsy showed normal histology after four months. **Discussion:** This case supports previous studies showing laser therapy being an effective symptomatic treatment of lichen sclerosus (1, 2). It is also a non-invasive treatment for high-grade vulvar dysplasia, as surgery in particular can lead to a high risk of infection and worsening of lichen sclerosus. Similarly, medical treatment with Aldara® often results in side effects that make it unsuitable for many patients, without adequate effect on vulvar dysplasia.

Laser therapy represents a tissue-sparing alternative, but the treatment requires close follow-up and attention to the risk of recurrence. The effect on vulvar dysplasia needs further verification (3). This case highlights the need for robust studies to clarify long-term effects and optimize treatment courses. This case demonstrates the potential for individualized treatment with CO2 laser therapy for complicated gynecological conditions such as vulvar dysplasia and lichen sclerosus. Laser therapy should be considered as a valuable alternative to surgery, especially in cases where tissue preservation is desirable and side effects from medical treatment limit options.