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Vulvar disease.

Foster DC

Obstet Gynecol 2002 Jul;100(1):145-63

Unique embryologic and immunologic aspects of the vulva contribute to the diagnostic and therapeutic challenges of managing vulvar problems. Individual variations in care of the genital region, defined by personal and societal "norms," may at times exacerbate vulvar problems. Three dimensions are considered in the evaluation of a vulvar problem: 1) lesion type, 2) lesion location, and 3) associated systemic and laboratory findings. This review of vulvar disease highlights a number of common and problematic vulvar conditions. Treatment options for vulvar conditions are covered with an expanded discussion of newer immune response modifiers.

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Use of oral contraceptive pills and vulvar vestibulitis: a case-control study.

Bouchard C, Brisson J, Fortier M, Morin C, Blanchette C

Am J Epidemiol 2002 Aug 1;156(3):254-61

Vulvar vestibulitis is characterized by superficial pain during intercourse. Exploratory studies have suggested that oral contraceptives (OCs) could be associated with occurrence of vulvar vestibulitis. This 1995-1998 case-control study in Quebec, Canada, sought to reassess this association. Included were 138 women with vulvar vestibulitis whose symptoms had appeared in the previous 2 years and 309 age-matched controls who were consulting their physicians for

reasons other than gynecologic problems or contraception. Cases and controls were interviewed to obtain a detailed history of OC use and information on potential confounding factors. Relative risks were estimated by using logistic regression. The authors found that 4 percent of cases had never used OCs compared with 17 percent of controls. The relative risk of vulvar vestibulitis was 6.6 (95 percent confidence interval: 2.5, 17.4) for ever users compared with never users. When OCs were first used before age 16 years, the relative risk of vulvar vestibulitis reached 9.3 (95 percent confidence interval: 3.2, 27.2) and increased with duration of OC use up to 2-4 years. The relative risk was higher when the pill used was of high progestogenic, high androgenic, and low estrogenic potency. The possibility that OC use may contribute to the occurrence of vulvar vestibulitis needs to be evaluated carefully.

Vulvar pain, sexual behavior and genital infections in a young population: a pilot study.

Berglund A, Nigaard L, Rylander E

Acta Obstet Gynecol Scand 2002 Aug;81(8):738-742

BACKGROUND: To study the prevalence of pain during intercourse in a young population and analyze factors that may be associated with vulvar pain. METHODS: During a 2-month period, 172 women (aged 12-26 years) consulting four different adolescent health centres in Stockholm, Sweden, responded to a questionnaire concerning sexual habits, history of infections, and genital symptoms a priori vulvar pain. Multiple logistic regression model was used to evaluate the independent effects of the variables associated with vulvar pain. RESULTS: One-third of the women reported regular pain during and/or after intercourse. Having regular sexual intercourse before the age of 16 years and using oral contraception for more than 2 years were independent variables increasing the risk of vulvar pain. There was a correlation trend between vulvar pain and lack of sexual desire, recurrent candida infections, and urinary tract infections. However, there was no correlation to sexually transmitted diseases. More than 4 years of regular intercourse and coitus at least 4 times a week were factors that inversely correlated to vulvar pain. CONCLUSIONS: One-third of young women answering a questionnaire at adolescent health centres reported regular pain during and/or after intercourse. Early regular coitus and long-time use of oral contraceptives were factors associated with vulvar pain. Frequently rubbing a vulnerable mucosa may result in irreversible damage and vulvar vestibulitis syndrome.

Safety and efficacy of topical nitroglycerin for treatment of vulvar pain in women with vulvodynia: a pilot study.

Walsh KE, Berman JR, Berman LA, Vierregger K

J Gend Specif Med 2002 Jul-Aug;5(4):21-7

OBJECTIVE: To evaluate the safety and efficacy of topical nitroglycerin

cream for the treatment of vulvar pain in women with vulvodynia. METHODS: A total of 34 women diagnosed with vulvodynia were included in this study. Patients were treated with 0.2% nitroglycerin cream in the clinic. The cream was applied directly to the skin at the genital/vulvar area where the pain was located. Patients who did not experience any adverse side effects were instructed to use the cream at home at least three times per week, 5-10 minutes prior to sexual relations. Patients completed a pretreatment pain scale at baseline and a posttreatment pain scale questionnaire 4-6 weeks later. RESULTS: Twenty-one patients completed both the pre- and posttreatment pain scale questionnaires, and 13 patients completed only the posttreatment pain questionnaire. Thirty-one patients (91.5%) stated that "overall" their pain had improved. Analysis of the pre- and posttreatment questionnaires revealed a significant decrease in pain intensity on a scale of 0 (no pain) to 5 (excruciating pain; 3.95-2.57; P <.000). There was also a significant decrease in the frequency of overall painful episodes on a scale of 0 (never) to 4 (always; 3.25-2.15, P < .006). All 21 patients reported "improvement" of pain during sexual activity (3.65-2.15; P < .005). CONCLUSION: Topical nitroglycerin is safe and effective in providing temporary relief of introital dyspareunia and vulvar pain in women with vulvodynia. Women who completed this study experienced significant improvement in their overall pain and pain with sexual activity after nitroglycerin use. A larger placebo-controlled study is necessary to establish the optimum dosage level and to minimize the side effects.

Enhancement of the perception of systemic pain in women with vulvar vestibulitis.

Granot M, Friedman M, Yarnitsky D, Zimmer EZ

BJOG 2002 Aug;109(8):863-6

OBJECTIVE: The aim of this study was to determine whether the characteristics of systemic pain perception and anxiety differ between women with vulvar vestibulitis and healthy women. DESIGN: Case control study. SETTING: Tertiary care hospital. POPULATION: Forty-four women with vulvar vestibulitis and 41 healthy women participated in the study. METHODS: First, the women's state and trait anxiety was evaluated. Thereafer, heat pain stimuli were applied to the women's forearm and the pain and unpleasantness thresholds, as well as magnitude estimation of perceived intensity and unpleasantness of suprathreshold stimuli, were assessed. Finally, blood pressure was measured before, during and after a heat stimulus of 46 degrees C. MAIN OUTCOME MEASURES: Pain threshold and suprathreshold, and anxiety levels of women with vulvar vestibulitis. RESULTS: Women with vulvar vestibulitis had a higher anxiety state (40.0 [12.8] vs 34.1 [10.8], P = 0.044), a higher anxiety trait (42.1 [10.2] vs 35.6 [7.5], P= 0.005), a lower pain threshold (42.2 degrees C [2.5] vs 43.6 degrees C [1.9], P = 0.006), a lower unpleasantness threshold (40.2 degrees C [2.9] vs 41.7 degrees C [2.3], P = 0.023), a higher magnitude estimation of suprathreshold pain at 47 degrees C (88.3 [14.9] vs 70.8 [14.9], P = 0.0001) and at 48 degrees C (96.1 [7.3] vs 84.6 [14.8], P < 0.0001), a higher scoring of tonic pain perception (65.2 [17.3] vs 53.0 [18.6], P = 0.006) and a higher increase in systolic blood pressure during tonic

pain stimuli (4.6 [9.6] vs -2.1 [8.7] mmHg, P = 0.005). CONCLUSION: Women with vulvar vestibulitis have an enhanced systemic pain perception and are more anxious.

Interstitial cystitis coexisting with vulvar vestibulitis in a 4-year-old girl.

Selo-Ojeme DO, Paranjothy S, Onwude JL

Int Urogynecol J Pelvic Floor Dysfunct 2002;13(4):261-2

Interstitial cystitis (IC) is a disorder that is difficult to diagnose and is thought to be uncommon in children. We report the first case of IC coexisting with vulvar vestibulitis in a 4-year-old girl. She presented with urinary symptoms and pelvic and vulvar pain. Cystoscopic and histological investigation confirmed interstitial cystitis and vulvar vestibulitis. Gynecologists are often called upon to deal with symptoms referable to the genital tract. It is important to always include interstitial cystitis in the differential diagnosis of urinary symptoms associated with pelvic pain.

In favor of an integrated pain-relief treatment approach for vulvar vestibulitis syndrome.

Bergeron S, Binik YM, Khalife S

J Psychosom Obstet Gynaecol 2002 Mar;23(1):7-9

Vulvar vestibulitis syndrome: care made to measure.

Weijmar Schultz WC, van de Wiel HB

J Psychosom Obstet Gynaecol 2002 Mar;23(1):5-6

Managing vulvar vestibulitis.

Driver KA

Nurse Pract 2002 Jul;27(7):24-35

Vulvar vestibulitis, a type of vulvodynia, affects many American women. Patients typically present with a history of intermittent or continuous, localized, vulvar pain and frequently can't tolerate sexual intercourse. Here, review the etiology, history and physical examination, and comprehensive treatment of vulvar vestibulitis, including nonpharmacologic, pharmacologic, psychosocial, and surgical measures.

Health-related quality of life measurement in women with common benign gynecologic conditions: A systematic review.

Jones GL, Kennedy SH, Jenkinson C

Am J Obstet Gynecol 2002 Aug;187(2):501-11

Endometriosis, menorrhagia, chronic pelvic pain, and polycystic ovary syndrome are major sources of psychologic morbidity and can negatively affect quality of life. Although comparative studies have been published on the measurement of health-related quality of life for gynecologic malignancies, a similar review for these benign gynecologic conditions has not been conducted. Consequently, we searched the literature systematically to identify the impact of symptoms and treatments for these conditions on health status and to report on the types and psychometric properties of the instruments used. Papers were retrieved by systematically searching 6 electronic databases and hand-searching relevant reference lists and bibliographies. Forty-six studies used a questionnaire to measure health status: 34 studies (74%) used standardized instruments; of these, 23 studies (68%) used generic tools. Although a meta analysis was not possible, it appears that women with chronic pelvic pain and conditions that are associated with pelvic pain (such as endometriosis) report worse health-related quality of life. Despite the development of disease-specific questionnaires, only 2 questionnaires were generated from interviews of patients with the condition of interest, and few questionnaires are being used to evaluate the outcomes of treatment on subjective health status.

Questionnaire as diagnostic tool in chronic pelvic pain (CPP): a pilot study.

van Os-Bossagh P, Pols T, Hop WC, Nelemans T, Erdmann W, Drogendijk AC, Bohnen AM.

Eur J Obstet Gynecol Reprod Biol 2002 Jul 10;103(2):173-8

OBJECTIVES: No standard screening instrument is available enabling physicians to assign the diagnosis chronic pelvic pain (CPP) to women with lower abdominal pain. Therefore, our aim was to evaluate an easy-to-use questionnaire, which can be applied as a validated primary screening test for diagnosing CPP. STUDY DESIGN: From the general female population, 577 women completed a questionnaire addressing chronic symptoms in the pelvic region. Included were (amongst others) questions on lower abdominal pain, low back pain, voiding symptoms, dyspareunia, pelveo-perineal dysesthetic feelings and evacuation problems. Serious chronic lower abdominal pain of unknown origin was considered as CPP. Three criteria were applied to validate the questionnaire: construct validity, comparison with results of a previous study and content validity. In addition, the internal consistency was checked to ascertain the reliability of the questionnaire. RESULTS: All items, with the exception of those concerning voiding symptoms and dyspareunia, withstood the validity tests applied, were interrelated and occurred significantly more often in women with CPP than those without. There were no significant

differences in the frequency of the occurrence of low back pain, dyspareunia and evacuation problems between CPP women in the current community study and outpatients diagnosed with CPP in an earlier study performed at the University Hospital Rotterdam. Compared to our current study group, pelveo-perineal dysesthesia (PPD) and voiding symptoms were significantly more often reported by the CPP outpatients. CONCLUSION: The CPP questionnaire can be considered as a validated tool for primary screening of CPP.

Innervation of the female levator ani muscles.

Barber MD, Bremer RE, Thor KB, Dolber PC, Kuehl TJ, Coates KW

Am J Obstet Gynecol 2002 Jul;187(1):64-71

OBJECTIVE: The objective of this study was to characterize the innervation of the human female levator ani muscles.Study Design: Detailed dissections of the peripheral innervation of the iliococcygeal, pubococcygeal, puborectal, and coccygeal muscles were performed in 12 fresh-frozen female cadavers (aged, 32-100 years) with the use of transabdominal, gluteal, and perineal approaches. Both the pudendal nerve and the sacral nerve roots that enter the pelvis from the cephalic side were followed from their origin at the sacral foramina to their termination. Pelvic floor innervation was described with reference to fixed bony landmarks, particularly the coccyx, the ischial spine and the inferior pubis. Photographs were taken, and nerve biopsies were performed to confirm the gross findings histologically. Biopsy specimens were stained with Masson's trichrome. RESULTS: In each dissection, a nerve originated from the S3 to S5 foramina (S4 alone, 30%; from S3 and S4, 40%; from S4 and S5, 30%), crossed the superior surface of the coccygeal muscle (3.0 +/- 1.4 cm medial to the ischial spine [range, 1.0-4.2 cm]), traveled on the superior surface of the iliococcygeal muscle innervating it at its approximate midpoint, and continued on to innervate both the pubococcygeal and puborectal muscles at their approximate midpoint. The pudendal nerve originated from the S2 to S4 foramina, exited the pelvis through the greater sciatic foramen, traversed Alcock's canal, and branched to innervate the external anal sphincter, the external urethral sphincter, the perineal musculature, the clitoris, and the skin. Despite specific attempts to locate pudendal branches to the levator ani, none could be demonstrated. Nerve biopsy specimens that were obtained at gross dissection were confirmed histologically. CONCLUSION: Gross dissections suggest that the female levator ani muscle is not innervated by the pudendal nerve but rather by innervation that originates the sacral nerve roots (S3-S5) that travels on the superior surface of the pelvic floor (levator ani nerve). Because definitive studies (eg, nerve transection or neurotracer studies) cannot be performed in humans, further studies that will use appropriate animal models are necessary to confirm and extend our findings.

Computed tomography-guided pudendal nerve block. A new diagnostic approach to long-term anoperineal pain: a report of two cases.

Siegel C

J Urol 2002 Jul;168(1):380

VULVOVAGINAL INFECTION AND DERMATOSES

Over-the-counter antifungal drug misuse associated with patient-diagnosed vulvovaginal candidiasis.

Soller RW

Obstet Gynecol 2002 Aug;100(2):380-1

Recurrent vulvovaginal candidiasis.

MacNeill C, Carey JC

Curr Womens Health Rep 2001 Aug;1(1):31-5

Widespread use of over-the-counter antifungal medications has contributed to a large increase in the number of women who experience more than three episodes of candida vulvovaginitis per year. These women are particularly prone to chronic vulvovaginal pain syndromes; as such, the value of aggressive therapy based on detailed diagnosis extends well beyond immediate symptom relief. Diagnosis is complicated by the fact that a larger proportion of cases of are due to non-albicans species, which are not readily identifiable at office evaluation, and points to the value of fungal culture in such cases. Although most Candida albicans are sensitive to azole antifungals, non-albicans species are more often resistant, necessitating alternative therapies. In many cases therapy aimed at suppression of recurrence must extend 6 months. Ongoing studies may identify host factors that facilitate recurrence, and thus provide the basis for individually targeted therapy.

Type 1 T Helper Cells Specific for Candida albicans Antigens in Peripheral Blood and Vaginal Mucosa of Women with Recurrent Vaginal Candidiasis.

Piccinni M, Vultaggio A, Scaletti C, Livi C, Gomez MJ, Giudizi MG, Biagiotti R, Cassone A, Romagnani S, Maggi E

The Journal of Infectious Diseases 2002;186:87-93

The cytokine profile of circulating and vaginal T cells specific for immunodominant mannoprotein antigens of Candida albicans was analyzed in patients with recurrent vaginal candidiasis (RVC). Peripheral blood mononuclear cells (PBMC) from patients with RVC proliferated more than those from healthy subjects and expressed higher type 1 : type 2 T

helper cell cytokine ratios in response to C. albicans stimulation. A higher number of C. albicansspecific T cells was generated in PBMC from patients with RVC than in PBMC from healthy donors. C. albicansspecific T cell clones from patients with RVC produced higher levels of interferon (IFN) and lower levels of interleukin (IL)4 than clones from control women. More important, a higher proportion of C. albicansspecific T cell clones was generated from lesional mucosa of patients with RVC than from normal mucosa, all of which produced IFN- but not IL-4. These findings provide direct evidence that RVC is characterized by a highly polarized local and circulating type 1 T helper celllike response against C. albicans antigens.

Treatment of vulvovaginal lichen planus with vaginal hydrocortisone suppositories.

Anderson M, Kutzner S, Kaufman RH

Obstet Gynecol 2002 Aug;100(2):359-62

OBJECTIVE: To estimate the effectiveness of vaginal hydrocortisone suppositories in the treatment of vulvovaginal lichen planus. METHODS: A nonprobability sample of 60 patients diagnosed with vulvovaginal lichen planus were treated with intravaginal hydrocortisone 25-mg suppositories (1-1/2) twice a day. The dose was tapered to two times a week dosing after several months to maintain symptom-free disease. The participants' charts were reviewed and pretreatment symptoms and physical examination were compared to posttreatment symptoms and physical examination. Data were analyzed using McNemar chi(2). RESULTS: The sample population included mostly white (86.7%) patients with a mean age of 58 years. Forty-three participants had complete data with follow-up subjectively and objectively after treatment. Most symptoms (eg, vulvar burning, pruritis, dyspareunia, vaginal discharge) were improved and the improvement was found to be statistically significant. Sexual activity was unchanged in the women. Additionally, most physical findings by examination (eg, erythema, erosions, vulvar and vaginal lesions) were improved and the improvement was found to be statistically significant. Vaginal stenosis did not significantly improve. Treatment was continued in 35 patients with a mean duration of 28.1 months. There was overall improvement in 81% subjectively and in 76.8% objectively. CONCLUSION: Intravaginal hydrocortisone suppositories are an effective treatment for vulvovaginal lichen planus.

Survey of genital lichen sclerosus in women and men.

Hagedorn M, Buxmeyer B, Schmitt Y, Bauknecht T

Arch Gynecol Obstet 2002 Apr;266(2):86-91

We present the clinical and laboratory findings in 60 women and 42 men with lichen sclerosus.

Lichen sclerosus. A review.

Wong YW, Powell J, Oxon MA

Minerva Med 2002 Apr;93(2):95-9

Lichen sclerosus is a chronic inflammatory skin condition that can cause substantial physical and psychological morbidity. It most commonly affects women in the anogenital region, but may affect any area of skin in either sex at any age. Not only does it cause itching and soreness, but also urinary and sexual problems. There is an increased risk of developing squamous cell carcinoma in the genital area in both female and male sufferers, thus long term follow-up may be justified. The aetiology of Lichen sclerosus is unknown but genetic factors play a role, and chronic infection had been postulated but not proven. The association with autoimmune disease is also well recognized. The mainstay of treatment for genital lichen sclerosus is potent topical steroid. Surgery may be required only to relieve the effect of scarring. Current research to understand the pathogenesis of disease may allow us to target specific intervention in the future.

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