Female dyspareunia

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Training Course in Reproductive Health/ Sexual Health Research

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Female dyspareunia

- Terms and definitions
- Prevalence
- Etiology
- Evaluation and differential diagnosis
- Therapy
- Research

Terms and definitions

Dyspareunia	Painful sexual intercourse
Superficial/entry dyspareunia	Pain at the introitus during intercourse
Deep dyspareunia	Deep pain associated with intercourse
Vaginismus	Involuntary spasms of the introital (bulbocavernosus) muscles
Vulvodynia	Chronic vulvar pain

Common sexual problems in women and men in the UK (Family Practice 1998 15: 519-24)

Problem	**Current (%)**	**Lifetime (%)**
Women (N=979; Age 18-75 years)		
Never or rarely climax	27	
Pain during intercourse	18	45
Vaginal dryness	28	49
Problems with arousal	17	
Sex never or rarely pleasant	18	
Any of these	41	
Any lifetime problem		68
Men (N=789)		
Difficulty getting erection	21	23
Difficulty maintaining erection	24	25
Either or both of these	26	39
Premature ejaculation	14	31
Sex never or rarely pleasant	9	
Any of these	34	
Any lifetime problem		54

EO Laumann, A Paik, RC Rosen. Sexual dysfunction in the United States: prevalence and predictors. JAMA 1999 281: 537-544

Question	Percent
Women (N=1749; Age 18-59 years)	
Lack interest in sex	32
Unable to achieve orgasm	26
Experience pain during sex	16
Sex not pleasurable	23
Anxious about performance	12
Trouble lubricating	21
Men (N=1410)	
Lack interest in sex	15
Unable to achieve orgasm	8
Climax too early	31
Sex not pleasurable	8
Anxious about performance	18
Trouble achieving or maintaining erection	10

Danielsson I, Sjoberg I, Stenlund H, Wikman M. Prevalence and incidence of prolonged and severe dyspareunia in women: results from a population study. Scand J Public Health. 2003;31(2):113-8

AIMS: The principle aim of this study was to investigate the prevalence and incidence of prolonged (≥ 6 months) and severe dyspareunia in a non-patient population of women.

METHODS: A total of 3,017 women aged 20-60 participating in a screening program for cervical cancer answered a questionnaire about possible painful coitus.

RESULTS: The prevalence was 9.3% for the whole group and 13% for women aged 20-29 and 6.5% for the women aged 50-60, with a risk ratio of 2.0 (95% CI 1.4-2.8) for the youngest age group compared with the oldest. Of the women who had ever had prolonged and severe dyspareunia 28% had consulted a physician for their symptoms; 20% recovered after treatment, while 31% recovered spontaneously.

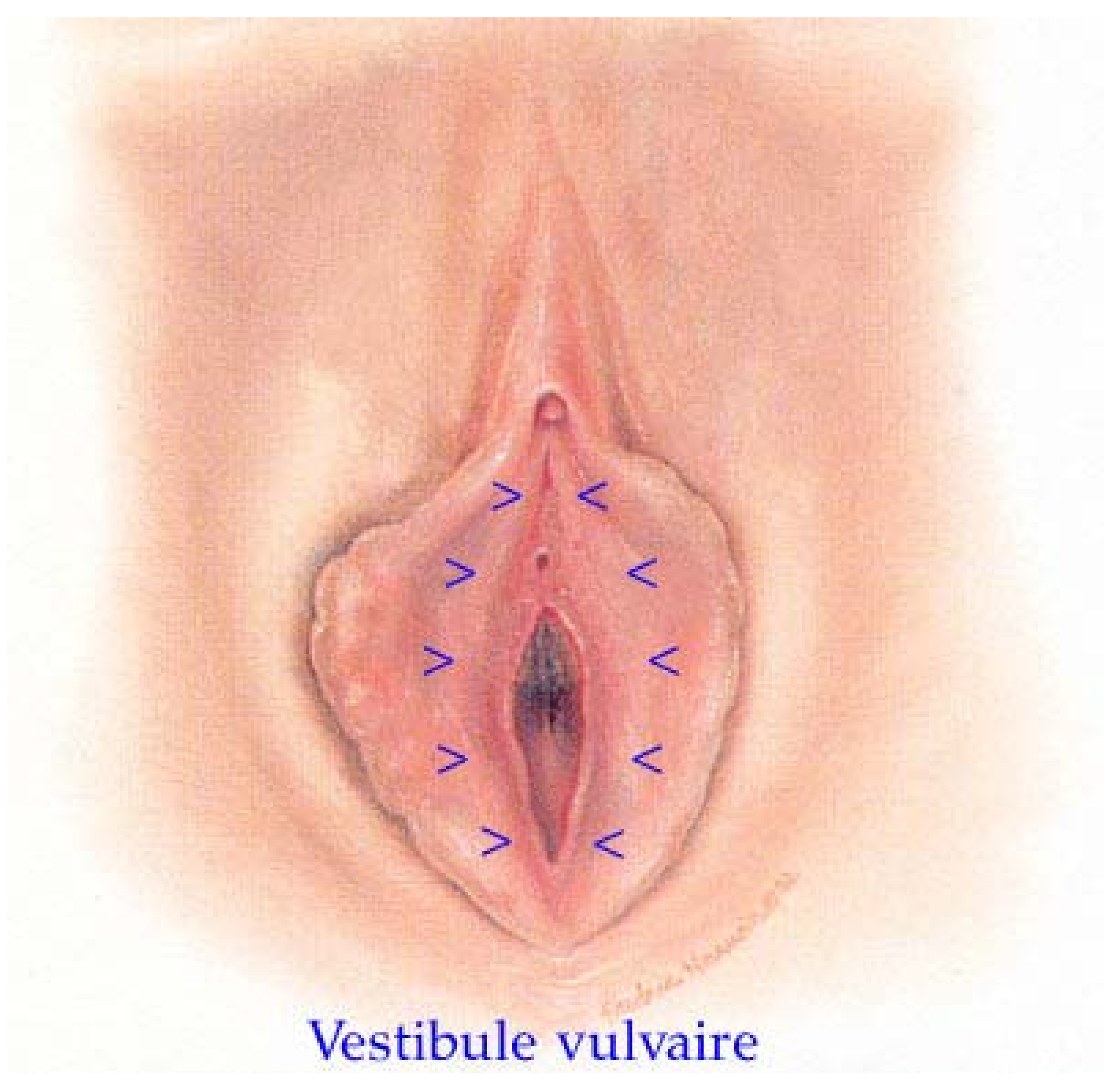
Etiology
Superficial dyspareunia
Vulvodynia

- Dysesthetic vulvodynia (essential vulvodynia)
- Vulvar vestibulitis
- Cyclic vulvovaginitis (candidiasis)
- Vulvar dermatoses
- Neoplastic vulvar lesions
- Vestibular papillomatosis

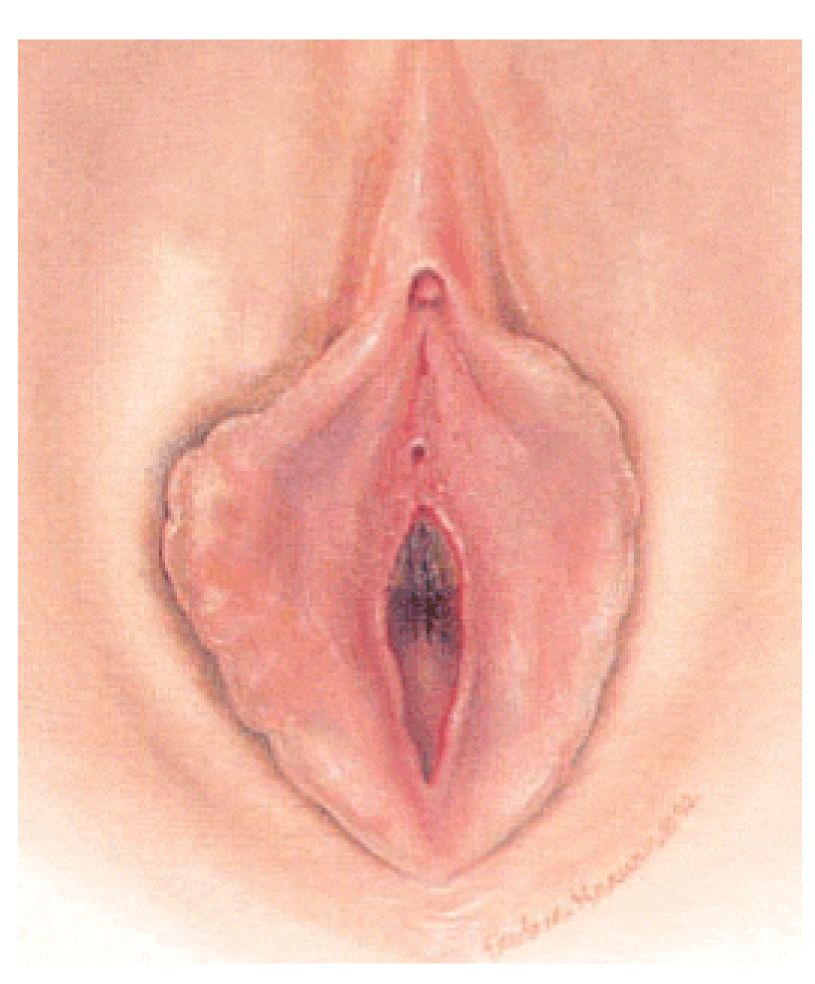
Dysesthetic vulvodynia (essential vulvodynia)

- Usually postmenopausal or perimenopausal
- Usually no erythematous cutaneous changes

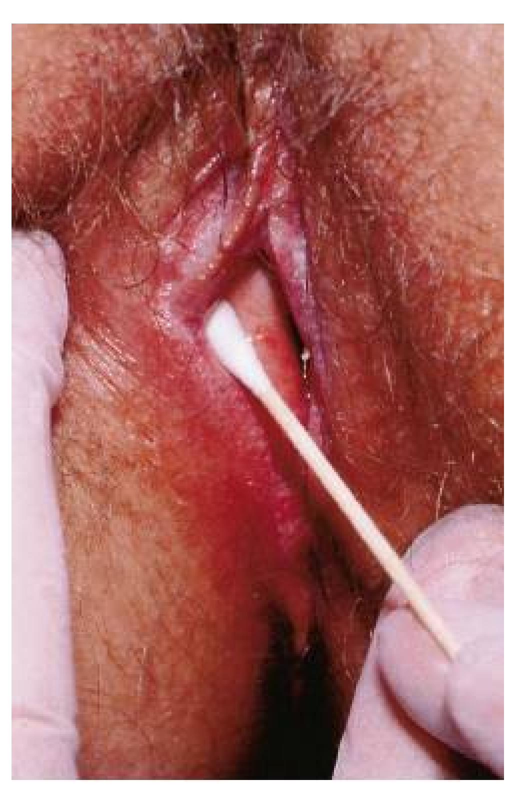
Vulvar vestibulum

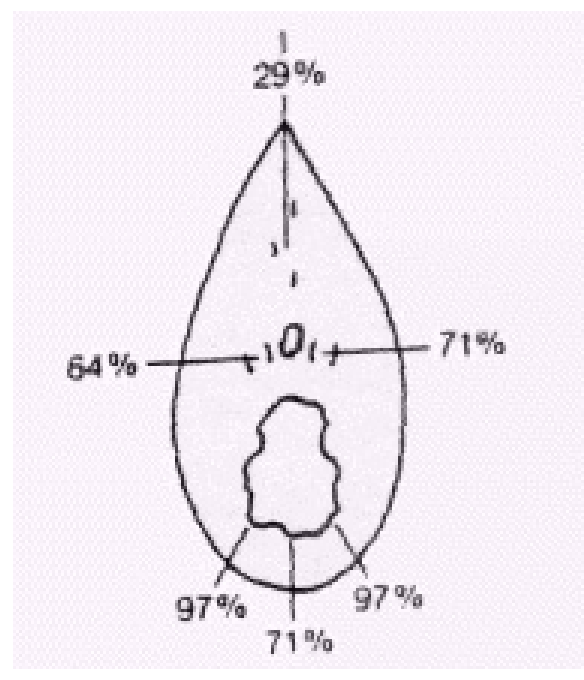


Vulvar vestibulitis

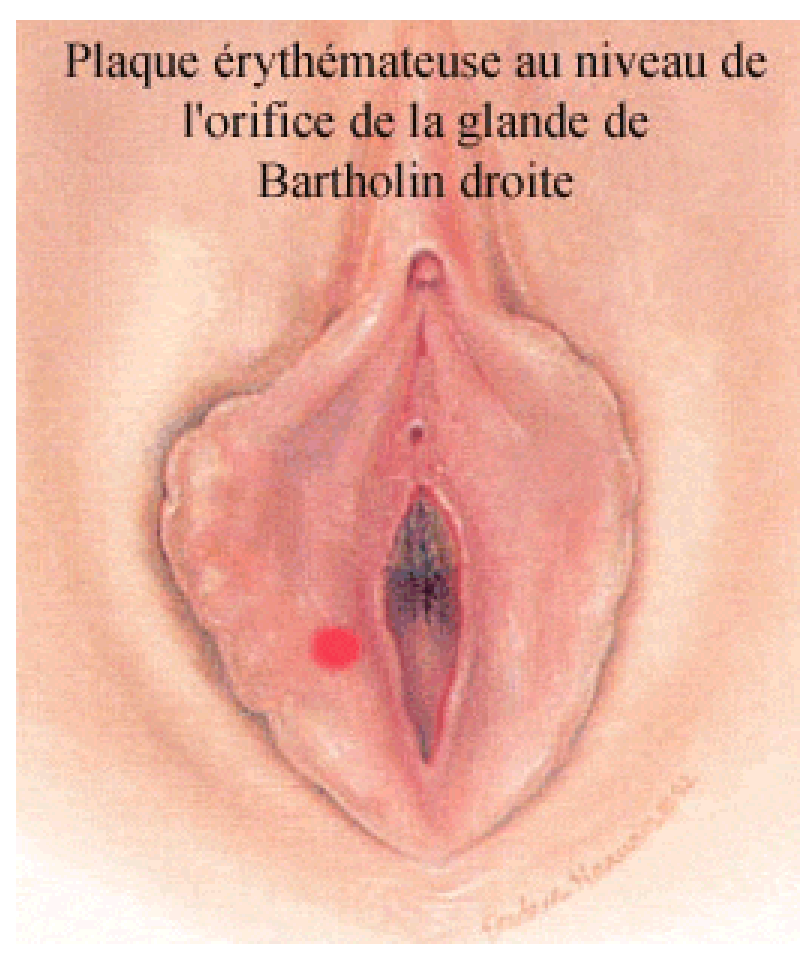


Vulvar vestibulitis – Swab test





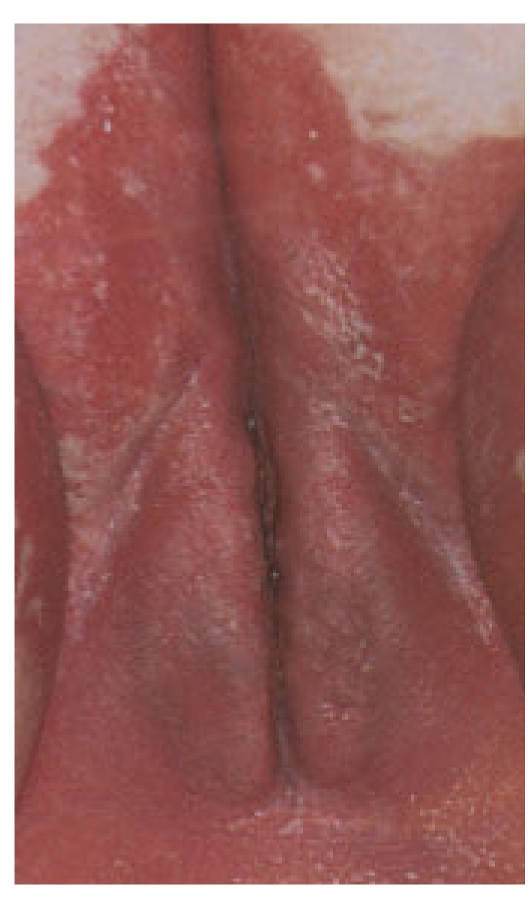
Vulvar vestibulitis - Erythema

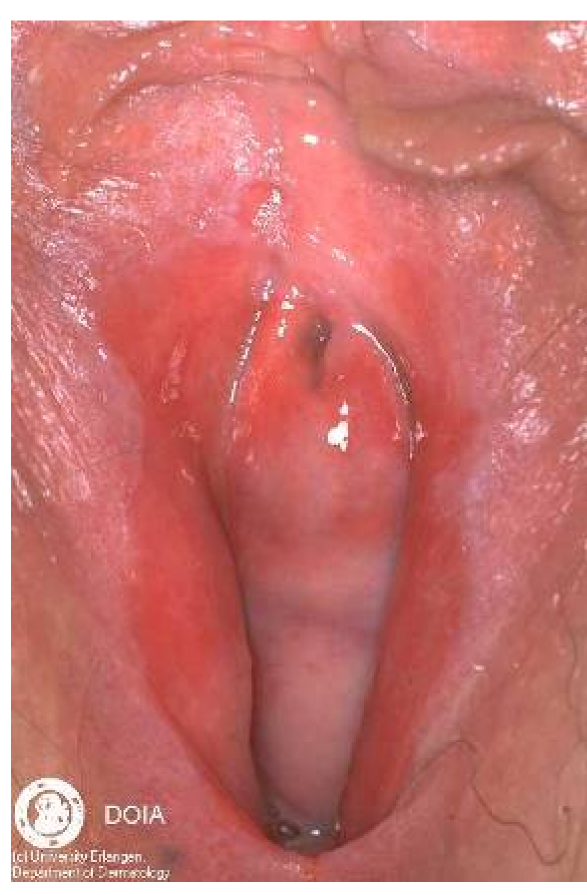


Cyclic vulvovaginitis

- Pain is worse just before or during menses
- Caused by a hypersensitivity reaction to Candida

Vulvar dermatoses

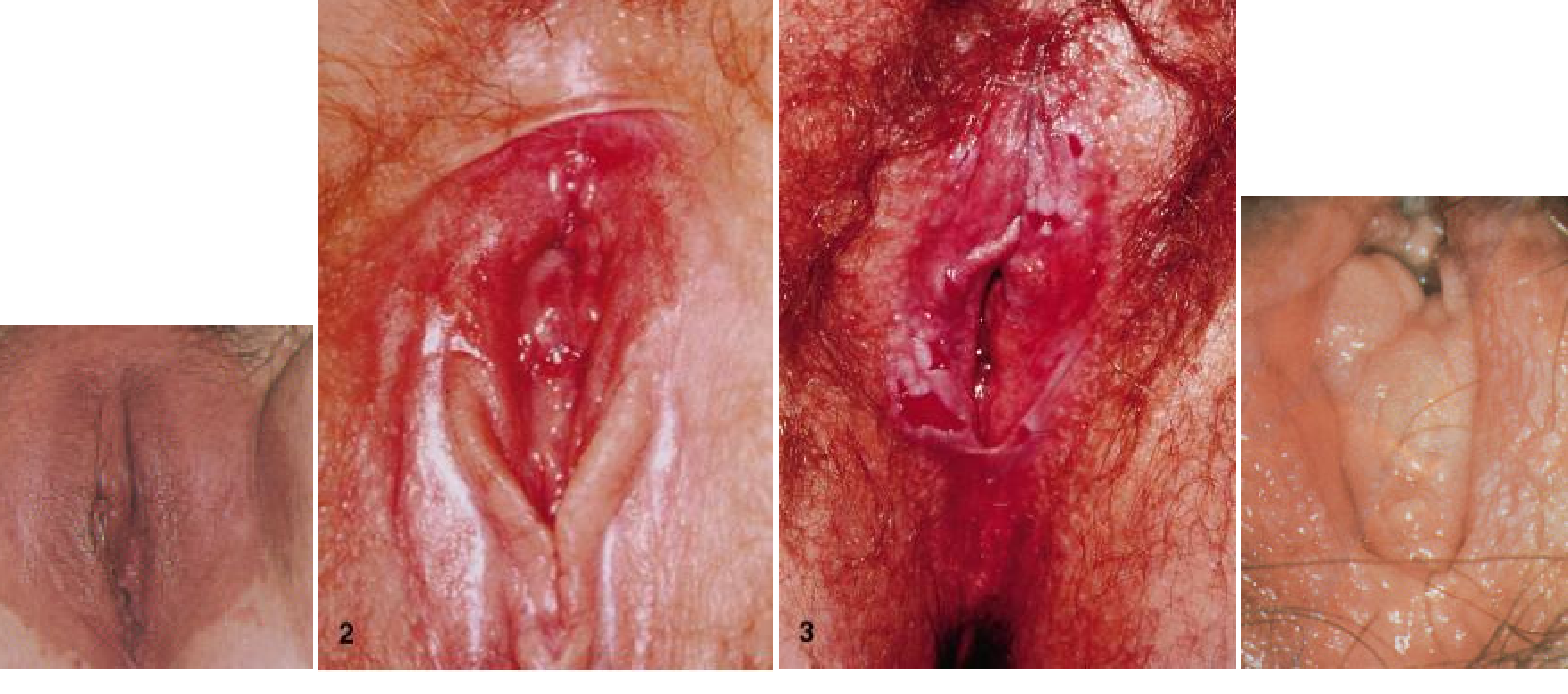

Psoriasis



Lichen planus

Lichen sclerosus et atrophicus

Vulvar dermatoses



Seborrheic dermatitis

Allergic dermatitis

Pemphigus vulgaris

Vestibular papillomatosis

Vulvodynia

Etiology	History	Physical findings
Dysesthetic vulvodynia	Usually postmenopausal or perimenopausal. Diffuse, unremitting burning pain that is not cyclic. Less dyspareunia or point tenderness than in vulvar vestibulitis.	Usually no erythematous cutaneous changes.
Vulvar vestibulitis	Usually premenopausal. Entry dyspareunia or pain with insertion of tampon. Possible history of carbon dioxide laser therapy, cryotherapy, allergic drug reactions or recent use of chemical irritants.	Positive swab test (vestibular point tenderness when touched with cotton swab). Focal or diffuse vestibular erythema.
Cyclic vulvovaginitis	Pain is worse just before or during menses. Pain is exacerbated by intercourse (especially on the next day). Some relatively symptom-free days. Frequent use of antibiotics for other conditions.	Variable erythema and edema. Minimal vaginal discharge.

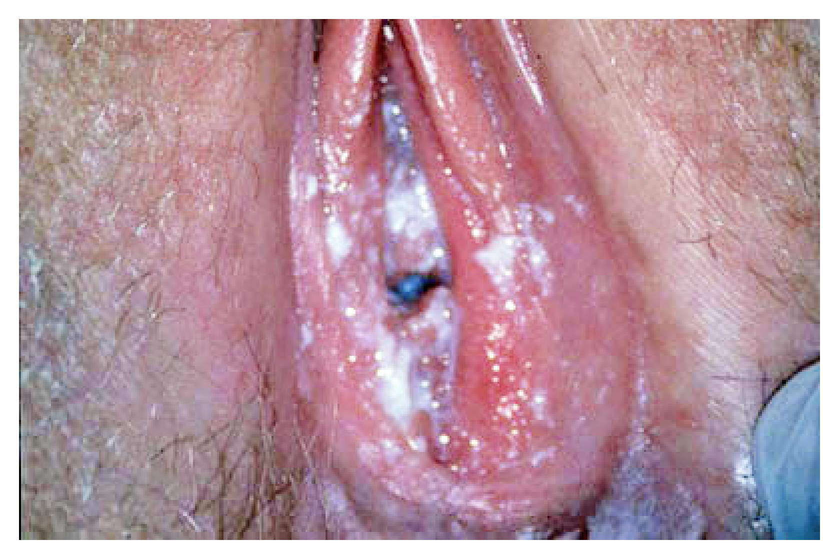
Vulvodynia

Etiology	History	Physical findings
Papulosquamous vulvar dermatoses	Itching is prominent. Variable chronic symptoms.	Erythema. Thick and/or scaly lesions. May have additional skin lesions elsewhere on body. Biopsy required.
Vesiculobullous vulvar dermatoses	Itching or burning. Variable chronic symptoms.	Blisters or ulcers that are not related to scratching. Biopsy may be required.
Neoplastic vulvar lesions	Variable persistent lesion.	Variable; possible white plaques, ulcers or erythema. Biopsy required.
Vestibular papillomatosis	Normal anatomic variant. Variable history of human papillomavirus infection. Many are asymptomatic.	Papillomatous appearance of mucosal surfaces. Biopsy to rule out koilocytosis or human papillomavirus infection if symptomatic or questionable.

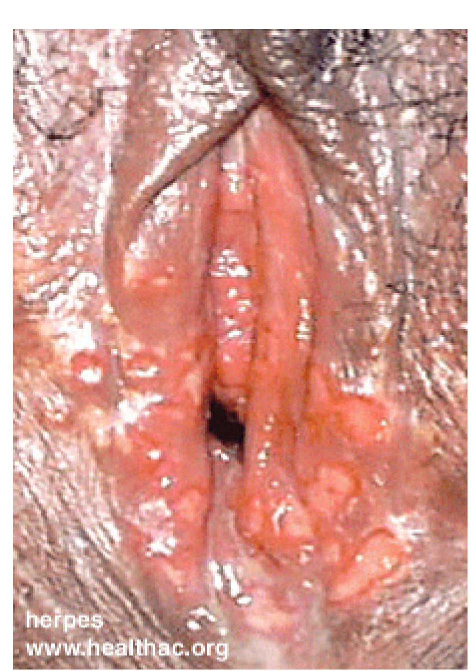
Etiology
Superficial and vaginal dyspareunia

- Causes of vulvodynia, vulvovaginal infections
- Psychogenic causes
- Inadequate lubrication
- Vulvovaginal congenital anomalies
- Female genital mutilation
- Obstetric causes (episiotomy scars, vulvar varicosities)
- Vulvovaginal atrophy
- Urologic disorders (interstitial cystitis, urethritis)
- Bowel disorders (constipation, proctitis)
- Neurologic disorders (pudendal nerve lesions)
- Muscular disorders (pelvic floor hypertonus, fibromyalgia)
- Sjögren syndrome
- Iatrogenic and traumatic causes

Vulvovaginal infections

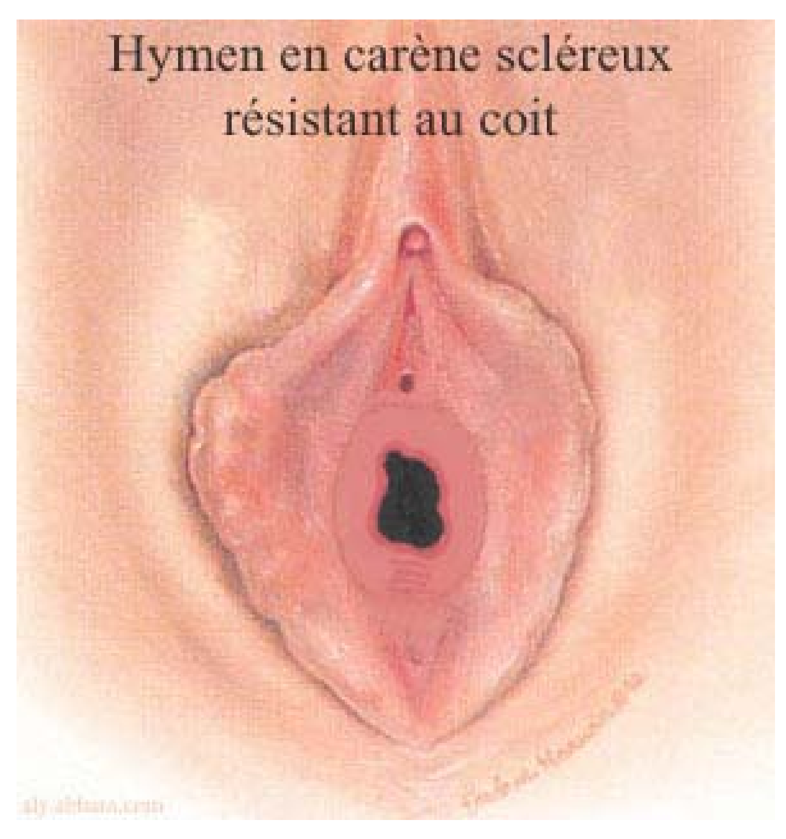


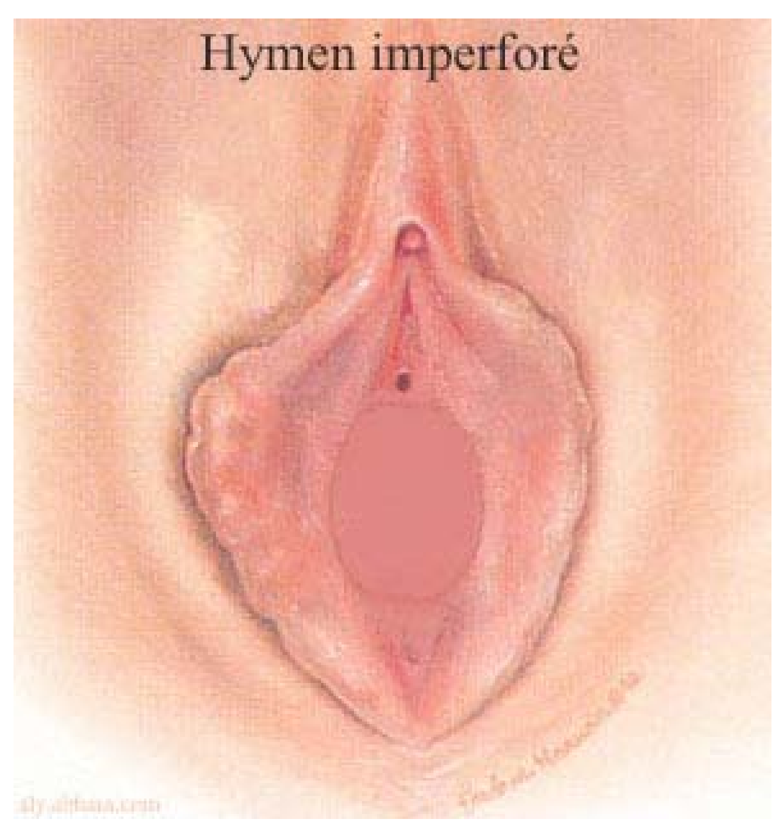
Candida albicans



Herpes genitalis

Congenital anomalies of the hymen

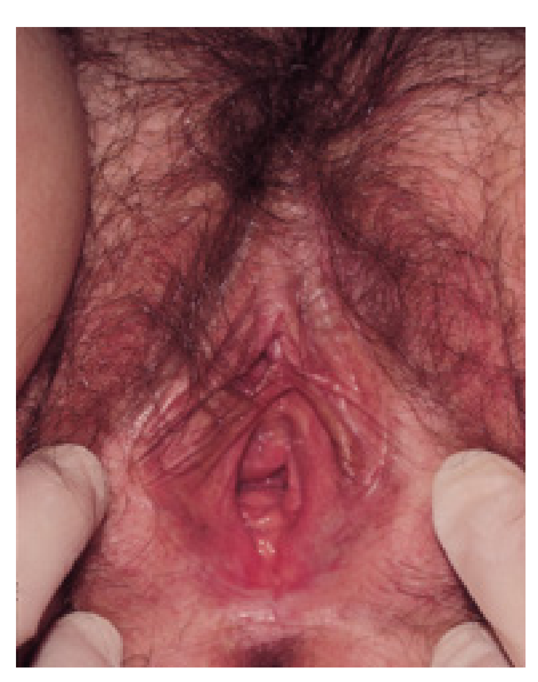


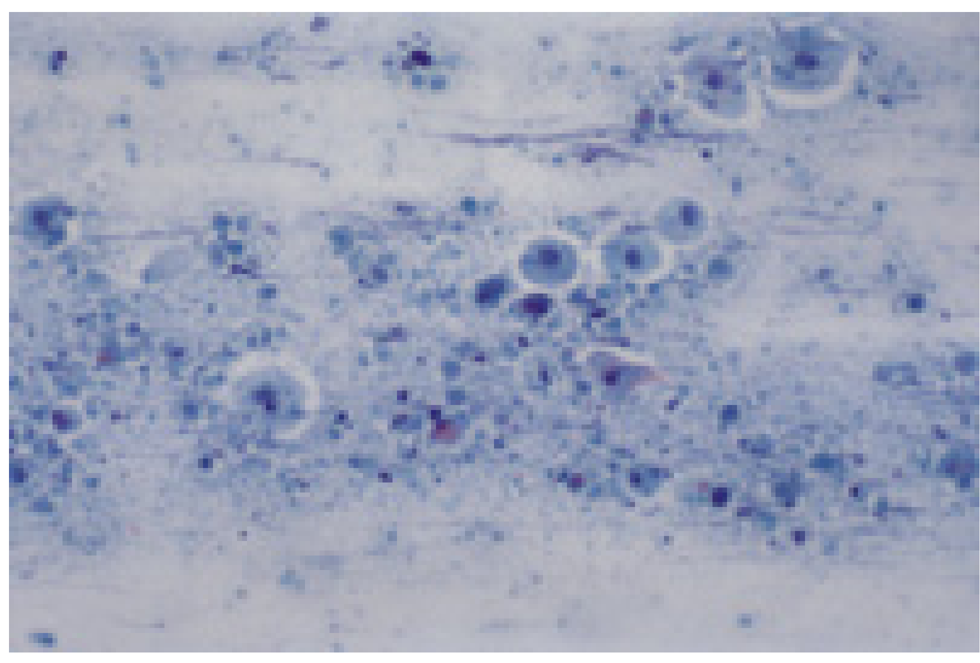


The effects of mediolateral episiotomy on pelvic floor function after vaginal delivery (Obstet Gynecol. 2004 Apr;103(4):669-73)

	Group A episiotomy (n=254)	Group B no episiotomy (n=265)	Odds ratio (95% CI)
Stress urinary incontinence (%)	12.9	12.1	1.01 (0.61, 1.69)
Anal incontinence (%)	2.8	1.9	1.47 (0.46, 4.7)
Dyspareunia (%)	7.9	3.4	2.43 (1.08, 5.45)
Perineal pain (%)	6.7	2.3	3.09 (1.2, 7.99)

Atrophic vaginitis





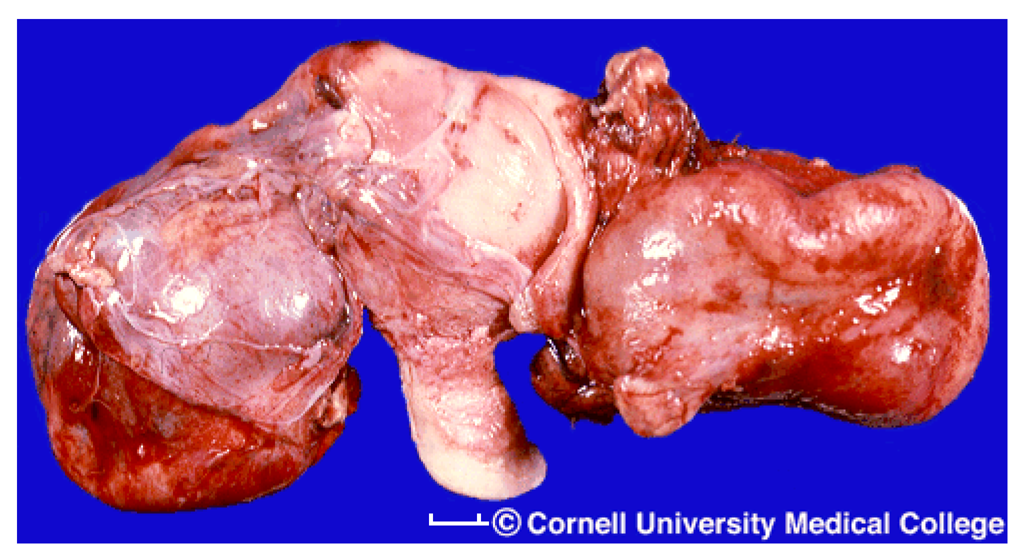
Nappi RE, Verde JB, Polatti F, Genazzani AR, Zara C. Self-reported sexual symptoms in women attending menopause clinics. Gynecol Obstet Invest. 2002;53(3):181-7

Age, years (n=355)	Pain during intercourse
46-50 (n=115)	26 (22.6%)
51-55 (n=188)	57 (30.3%)
56-60 (n=52)	23 (44.2%)
Time since menopause, years (n=295)	
<1.1 (n=72)	18 (25.0%)
1.1-2,1 (n=72)	15 (20.8%)
2.2-5.2 (n=78)	22 (28.2%)
>5.2 (n=73)	38 (52.1%)

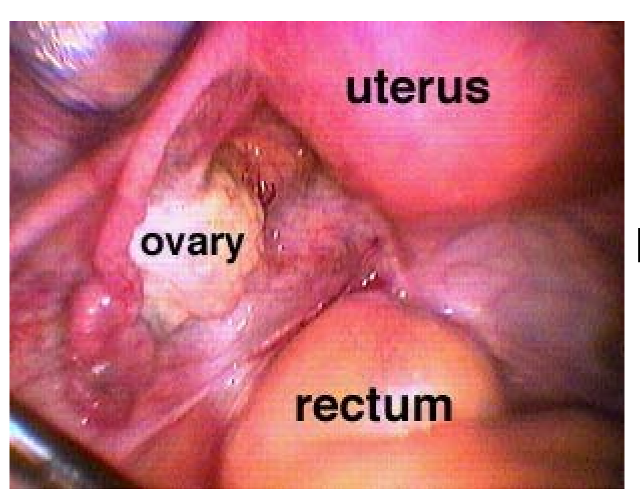
Etiology
Deep dyspareunia

- Genital infections: cervicitis, pelvic inflammatory disease
- Pelvic adhesions
- Endometriosis
- Retroverted uterus, uterine fibroids
- Postpartum: Allen-Masters syndrome (broad ligament laceration)
- Pelvic congestion
- Genital prolapse
- Inflammatory bowel disease

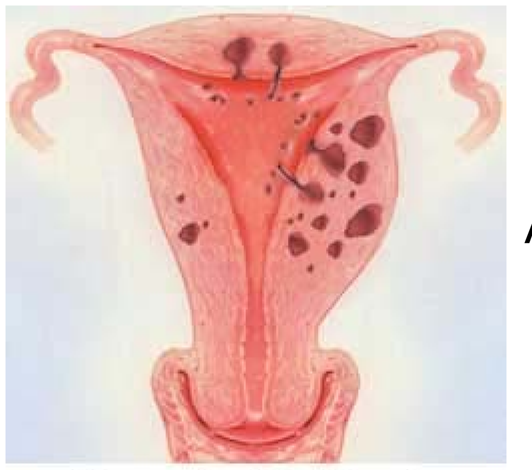
Deep dyspareunia - Etiology



Pelvic inflammatory disease



Endometriosis



Adenomyosis. Note thickened wall of uterus which can be mistaken for fibroids.

Adenomyosis

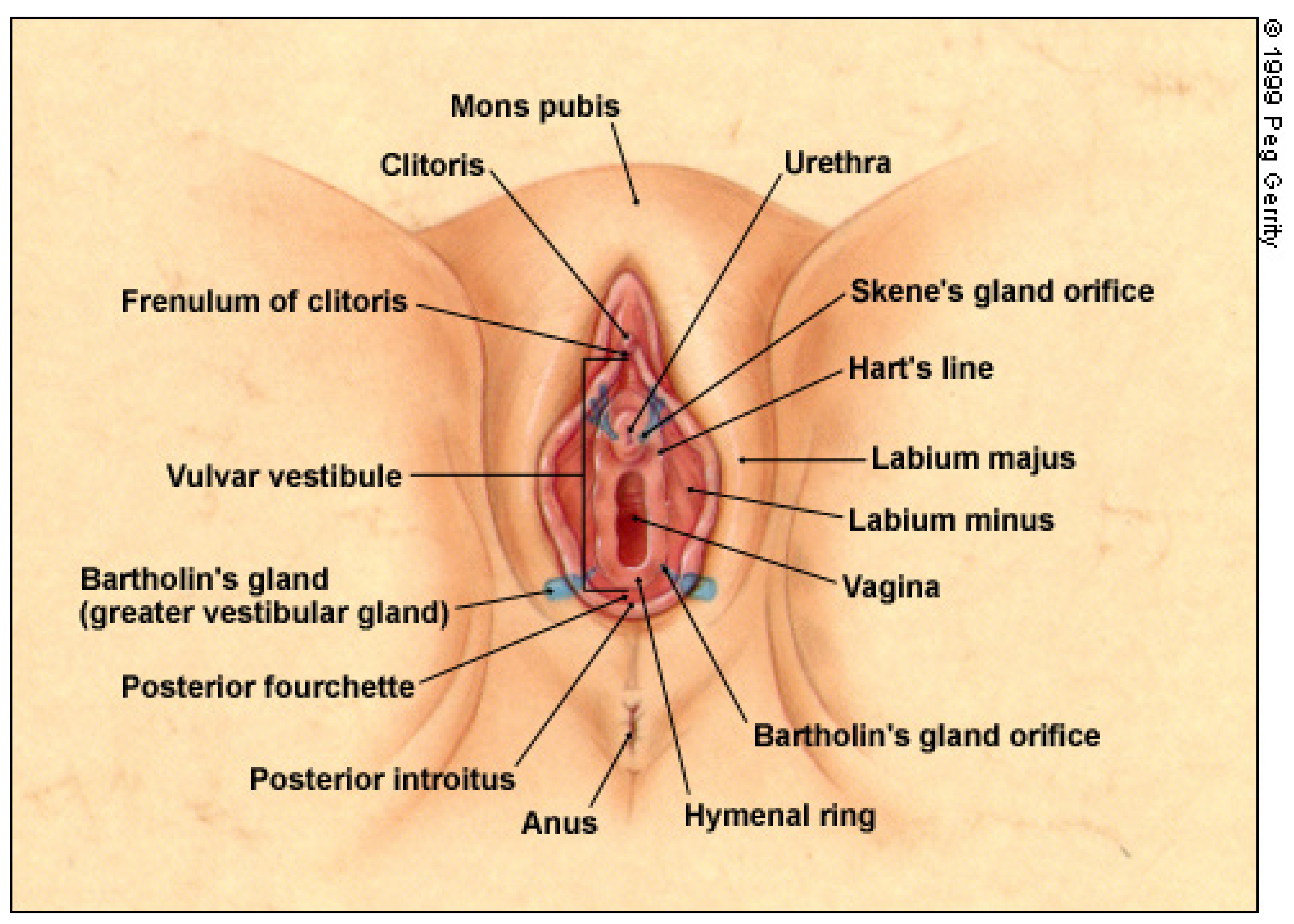
History

- Age, general history, gynecologic and obstetric history, psychologic factors, sexual history
- Dyspareunia
  - Superficial, vaginal, deep
  - Primary or secundary
  - Permanent or intermittent
  - Situational or generalized (occurs only with certain partners/situations or with all encounters)
  - With or without vulvodynia

Gynecological exam
Perineum, vulva, vagina

- Vaginal stenosis, atrophy, episiotomy scars, signs of vulvovaginitis or other vulvovaginal lesions
- Pain location, swab test
- Vaginal swab
- If indicated: culture, colposcopy, biopsy
- If indicated: pelvic floor electromyography

Anatomy of the vulva



Vulvovaginitis

	Trichomonas	**Candida**	**Bacterial vaginosis**
Vulvar pain	Present	Important	Absent
Discharge	Copious, malodorous, yellow-green (or discolored), pH$\geq$4.5	Thick, white ("cottage cheese"), normal pH	Gray or yellow, positive whiff test, pH$\geq$4.5
Vaginal swab			

Gynecological exam
Cervix, uterus, adnexa

- Cervix
  - Signs of cervicitis, hypertrophy, obstetric scars
  - Cervix tender to palpation
  - If indicated: cervical swab, culture
- Uterus
  - Position, size, consistency, tenderness
  - If indicated: vaginal ultrasound
- Adnexa
  - Size, tenderness
  - If indicated: vaginal ultrasound, laparoscopy

Therapy

Etiology	Therapy
Dysesthetic vulvodynia	Tricyclic antidepressants, anticonvulsants (gabapentin), biofeedback
Vulvar vestibulitis	Local anesthetics, local estrogens, tricyclic antidepressants, biofeedback, vestibulectomy
Cyclic vulvovaginitis	Antifungal treatment
Papulosquamous vulvar dermatoses	Topical corticosteroids or testosterone (lichen sclerosus)
Vulvovaginal atrophy	Estrogen therapy
Contact vulvitis	Removal of the causative agent
Infections	Specific antimicrobial treatment
Endometriosis	Pharmacological or surgical treatment
Retroverted uterus, fibroids, adhesions	Surgery

Initial skin management for women with vulval pain or itching

- Avoid irritants
  - Body fluids: sweat, vaginal secretions, urine and semen
  - Hygiene products: soaps, gels, bath oils, bubble bath, douches, perfumes, deodorants, depilatory creams and sanitary pads
  - Medicaments: disinfectants, tea tree oil, preservatives in creams, antifungal creams, topical anaesthetics and topical antibacterial agents
  - Lubricants and contraceptives: spermicides, condoms and diaphragms
  - Physical items: sanitary pads and tampon strings, tight clothing, synthetic underwear, toilet paper, overzealous cleansing and scrubbing, shaving and plucking of hair
- Moisturise dry skin with creams such as Sorbolene or aqueous cream
- Use barrier creams, such as zinc and castor oil cream or Vaseline, if there is incontinence or vaginal discharge
- Reduce scratching as much as possible by applying cold compresses
- Application of potassium permanganate solution
- Ensure there is adequate arousal and use lubricants for limited sexual intercourse; vegetable oils are less irritant than water-based lubricants

Welsh BM, Berzins KN, Cook KA, Fairley CK. Management of common vulval conditions.
Med J Aust. 2003 Apr 21;178(8):391-5.

PubMed: Dyspareunia OR Vulvodynia

February 24, 2006

- Meta-Analyses
  - Hart RJ, Hickey M, Maouris P, Buckett W, Garry R. Excisional surgery versus ablative surgery for ovarian endometriomata. Cochrane Database Syst Rev. 2005 Jul 20;(3):CD004992.
  - Hueting WE, Gooszen HG, van Laarhoven CJ. Sexual function and continence after ileo pouch anal anastomosis: a comparison between a meta-analysis and a questionnaire survey. Int J Colorectal Dis. 2004 May;19(3):215-8.
  - Maher C, Baessler K, Glazener CM, Adams EJ, Hagen S. Surgical management of pelvic organ prolapse in women. Cochrane Database Syst Rev. 2004 Oct 18;(4):CD004014.
  - Zondervan KT, Yudkin PL, Vessey MP, Dawes MG, Barlow DH, Kennedy SH. The prevalence of chronic pelvic pain in women in the United Kingdom: a systematic review. Br J Obstet Gynaecol. 1998 Jan;105(1):93-9.

PubMed: Dyspareunia OR Vulvodynia
Randomized controlled trials (89) – February 24, 2006

Main subject of the study	**N. of papers**
Endometriosis	32
Menopause	16
Labor complications	11
Urinary or fecal incontinence/genital prolapse	6
Vulvar vestibulitis	4
Hysterectomy	3
Chronic pelvic pain/dysmenorrhea	2
IUD	2
Uterine fibroids	2
Vulvodynia	2
Breast cancer	1
HPV	1
Interstitial cystitis	1
Lichen sclerosus	1
Pelvic inflammatory disease	1
Radiotherapy	1
Retroverted uterus	1
Sexual inadequacy	1
Vulvovaginitis	1