Vulvodynia – What’s Behind the Name?

‘Vulvodynia’ is a diagnostic term referring to chronic pain in the vulvar area of at least 3 months duration.

Vulvodynia includes and encompasses a number of heterogeneous vulvar conditions, with different etiologies and pathophysologies, and a common symptom: chronic vulvar pain.

Characteristics and Etiology of Vulvar Pain

Vulvodynia may be chronic or unremitting, intermittent or episodic (often exacerbated premenstrually). It may be unprovoked (spontaneous) or it may occur only in response to a touch stimulus (provoked pain), including tight clothing or physical stimulation in the vulvar area (such as with coitus or pelvic examination). It may be generalized, involving all the vulvar area, or localized, limited to the vestibular area (defined as ‘vulvar vestibulitis’, or VV), to the clitoris (‘clitoralgia’), to the peri-urethral mucosa and/or to a limited part of the vulva (Fig. 2.1).

It may be useful to clinically describe vulvar pain using a ‘pain map’ that describes the site and the intensity of pain derived from the woman’s history, and the symptoms reported by the woman during vulvar and pelvic examination.

There is no consensus about the use of terms to define and subtype
conditions underlying vulvodynia. However, other descriptors may be clinically useful. For example, vulvodynia can be the only complaint (‘isolated’ vulvodynia), or it may be comorbid with other conditions:

1. **Medical**: vulvo-vaginal *Candida* infections, vulvar dystrophies and neoplasms, contact dermatitis, hypoestrogenic and hypoandrogenic atrophy, painful bladder syndrome, endometriosis, irritable bowel syndrome, fibromyalgia, headache. Other recognized medical disorders with a possible chronic vulvar pain component include neurologic etiologies (pudendal nerve entrapment syndrome, multiple sclerosis), referred pain from myalgic muscles (*levator ani*), iatrogenic conditions (painful outcome after perineal surgery such as episiorraphy, hemorrhoidectomy, or posterior colpectomy), or pelvic/perineal radiotherapy;
**Box 1. Iatrogenic Vulvodynia**

Iatrogenic factors may act as predisposing, precipitating and/or maintaining contributors to vulvodynia:

- **Predisposing factors** include: invasive exams and manoeuvres such as vaginoscopy, cystoscopy, bladder catheterism, suturing of perineal traumatic accidental abrasions without appropriate analgesia, caring and explanations of the type of the exam or manoeuver. Pain experienced in these situations, fear and anguish may contribute to a specific vulnerability towards the potential aggressive meaning implicit in vaginal penetration and may contribute to vaginismus, hyperactive pelvic floor and a fobic attitude to intercourse, contributing to lifelong dyspareunia. In the Author’s experience, these iatrogenic factors may account as unique genital and emotional traumas for 5.8% of subsequent vulvodynia and dyspareunia.

- **Precipitating factors.** Any medical or surgical intervention on the vulva or vagina when it damages the pudendal nerve endings and/or the anatomy and function of vulvar/introital area. Potential precipitating iatrogenic factors contributing to dyspareunia include:
  - vulvar laser or diatermocoagulation for condilomatosis (genital warts) or for physiological vestibular papillomatosis misdiagnoses as HPV infection. This complication is more frequent when the laser goes too deep in the mucosa, damaging the deeper pain nerve endings and/or when it is repeated;
  - episiotomy/rhaphy, when infections, dehiscence of the suture and retracting scars damage the anatomy of the introital area often complicated with a specific damage of the terminal endings of the pudendal nerve;
  - surgery for Bartholin’s gland and abscesses, more so when surgery is repeated;
  - anterior and posterior colporraphy, the latter having the highest rate of dyspareunia complications and vulvodynia;
  - anal surgery, for hemorrhoids and ragads;
  - radiotherapy for anal, bladder and cervical cancer;

- **Maintaining factors:** diagnostic omissions of etiologies of vulvodynia/dyspareunia are the most powerful maintaining factors contributing to vulvar pain. Top of the list is the attitude to deny women the real biological etiology of their vulvar pain, that is not “all in their head”. A further side effect of this attitude is its negative impact on the partner and family of the woman affected with vulvodynia. This denial of the biological truth of pain may trigger the partner’s aggressiveness up to a frank physical, emotional and/or sexual abuse, contributing to depression, anxiety, chronic stress, all factors that worsen the perception of pain and to further fear of being penetrated.
**Key point:** Physicians should increase their attention to the potential iatrogenic role implicit in their diagnostic or therapeutic behaviors involving the pelvic organs, vulva and perineum at any age in the lifespan.

2. **Sexual:** Coital pain (‘dyspareunia’) is the most frequently reported sexual problem alongside loss of desire, vaginal dryness, orgasmic difficulties, especially during intercourse. In severe cases, sexual aversion may be reported.

**Table 2.1 The characteristics of vulvodynia**

Vulvar pain can be:
- Chronic/unremitting or
- Intermittent/episodic
- Spontaneous or
- Provoked
- Generalized or
- Localized - limited to:
  - the vestibular area (*vulvar vestibulitis*)
  - the clitoris (*clitoralgia*)
  - the peri-urethral mucosa
  - a limited part of the vulva
- Isolated or
- Comorbid with:
  - **Medical conditions:**
    - recurrent *Candida* vaginitis
    - painful bladder syndrome
    - irritable bowel syndrome
    - endometriosis
    - fibromyalgia
    - headache
    - anxiety and depression
  - **Sexual problems:**
    - dyspareunia (introital)
    - loss of desire
    - vaginal dryness
    - orgasmic (coital) difficulties
    - sexual aversion

**Definitions of Vulvodynia**

Definitions of vulvodynia have varied widely, mirroring the difficulties in understanding and substantiating the clinical reality and the pathophysiology
of vulvar pain. Of interest and concern is the fact that the condition was not officially recognized until 1898, was overlooked for more than 80 years, and then resurfaced in gynecological texts in the 1980s. The working definition of vulvodynia used by a 2005 consensus panel was ‘chronic pain lasting from three to six months in the vulvar region without another definable cause.’ The most recent terminology and classification of vulvar pain by the International Society for the Study of Vulvovaginal Disease (ISSVD) divides potential causes of vulvar pain into four categories:

- infectious;
- inflammatory;
- neoplastic;
- neurologic.

Conditions falling into these categories must be ruled out prior to making a diagnosis of vulvodynia, defined as “vulvar discomfort, most often described as burning pain, occurring in the absence of relevant visible findings or a specific, clinically identifiable, neurologic disorder.” Vulvodynia is not caused by infection (candidiasis, herpes, etc.), inflammation (lichen planus, immunobullous disorder, etc.), neoplasia (Paget’s disease, squamous cell carcinoma, etc.), nor is it a neurologic disorder (herpes neuralgia, spinal nerve compression, etc.).

The classification of vulvodynia is based upon the site of the pain, whether it is generalized or localized, and whether it is provoked, unprovoked, or mixed. The ISSVD further classifies vulvodynia as follows:

- Generalized vulvodynia
  - provoked (sexual, nonsexual, or both);
  - unprovoked;
  - mixed (provoked and unprovoked);
- Localized vulvodynia
  - provoked (sexual, nonsexual, or both);
  - provoked vestibulodynia/Vulvar Vestibulitis Syndrome;
  - unprovoked;
  - mixed (provoked and unprovoked).

**TIP:** Unfortunately, these definitions limit vulvodynia to a subset of unexplained vulvar pain, thus missing those conditions where pain has a clear etiology. Opposite to that, we suggest that vulvodynia should include all types of vulvar pain. It is the physician’s responsibility to make a differential diagnosis among the different biological
etologies of vulvar pain, focusing on pathophysiology and the histology of vulvar tissue. Vulvodynia can be exacerbated by psychobiological factors (anxiety, depression, chronic stress, former abuse) and sexual triggers such as intercourse.

Indeed, pain (almost) always has a biological etiology (the only exception being pain from grief) and what may not be immediately visible at first vulvar examination may become evident when appropriate and skilled clinical examination is performed and/or when histological data express clear evidence of an inflammatory condition typical, for example, of vulvar vestibulitis.

**Impact of Vulvodynia on Physical and Psychosexual Health**

Vulvodynia is a prevalent and highly distressing disorder, with major health, psychosexual, interpersonal and social consequences.

- **Health-related issues**: Besides being a serious medical problem, vulvodynia may trigger a process whereby the pain spreads to become a real ‘red alert’ in the pelvis. As a chronic inflammatory process, vulvar pain may secondarily involve/extend to other pelvic organs: the most frequent comorbidity being with bladder symptoms (post-coital cystitis, bladder pain syndrome). Other significant associations include endometriosis, chronic pelvic pain, irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, coccygodynia, headache and anxiety/depression. Preliminary evidence suggests a pathophysiology for comorbidities that involves:

  1. **A chronic inflammatory process involving different pelvic organs.**

     The common denominator seems to be the hyperactivity of mast cells (Fig. 2.2), which produce and release molecules that are responsible for the local inflammatory process, for the activation of the pain system, and for the defensive contraction of muscles in the painful area. Mast cells travel throughout the body, specifically patrolling the body’s ‘boundaries’ such as the colonic mucosa, the bladder mucosa and the vestibular area. They are the powerful directors of the inflammatory orchestra, and the mediators of the shift from acute inflammation with nociceptive pain to chronic inflammation with a further step towards neuropathic pain. This may help to explain how comorbidities arise among organs and systems that are located at different sites;
2. **Nerves innervating the organs that are in close proximity to the vulva** (for example, the pudendal nerve). The term ‘cross-talk’ has been used to express this process of ‘sharing pain’ between different organs sharing a common innervation. Proliferation of the pain nerve endings in the inflamed tissue, mediated and induced by the Nerve Growth Factor (NGF) produced by the hyperactivated mast cell has been histologically proven.

3. **The hyperactivity - i.e. the excessive contraction - of the levator ani**, the key muscle of the pelvic floor. This contraction can be either lifelong (“myogenic”) and associated to early symptoms such as lifelong constipation and/or bladder symptoms such as recurrent cystitis from colonic germs urge and/or recurrent vaginitis.

- **Psychosexual issues**: having pain in a ‘secret’ area of the body, difficulties in disclosing it to others, and/or being medically labeled as ‘inventing the pain’, may trigger a sense of isolation in women - of being ‘the only one’ with such an embarrassing and disabling condition. This suffering may be worsened if the woman has been harassed or abused in the past: the pain can act as a reminder of what she has suffered; it can be associated with unspecified feelings of guilt or be perceived as ‘retribution’ for perceived inappropriate sexual desire, masturbation, or affairs; and it can be associated with post-traumatic stress...
disorder. As unwanted pain is the strongest reflex inhibitor of desire, of mental and physical arousal, vulvodynia is associated with the progressive inhibition of the sexual response, with low levels of desire, vaginal dryness, orgasmic (coital) difficulties and increasing dissatisfaction or frank frustration with sexual intimacy. Chronic pain, of whatever type, can destroy a person’s vitality, leaving the patient weak, fatigued, anergic, moody, fearful, distressed, depressed, and pessimistic to the degree of frank catastrophism, a shadow of the person they once were.

• Interpersonal and social issues:
  a) For the couple: having a partner who complains of chronic genital pain is a challenge even for the most loving of companions, for a number of reasons: 1) it can chronically limit sexual intimacy up to to the point of frank avoidance of any intimate behavior; 2) it can monopolize the conversation and focus the couple on the vulvar pain and its related symptoms; 3) it can irritate and causes anger, aggressiveness, and frank verbal and physical abuse, especially if the woman’s physician tells the partner that: “The pain is all in her head”; that, “She is inventing the pain”; or that, “She is just trying to avoid having intercourse”; 4) it has increasing costs, both monetary (for physician visits, physical examinations, loss of working days) and related to quality of life (the social and emotional impact on a relationship);
  b) In the family: when a mother is unwell, the children may be aware that something is wrong, and may feel deprived of attention and tenderness - a problem that can increase as the condition becomes more severe;
  c) At work: women with vulvodynia report increased loss of working days, as well as increased difficulties in concentrating or even staying seated at their desk. Many women go part time or leave their jobs, and can feel forced out of work.

Conclusions

Vulvodynia is a highly prevalent and serious condition that deserves to be diagnosed and cured in order to reduce the suffering of both women and their partners; to avoid progressive worsening to chronicity and comorbidities; to reduce personal, family and social costs; and to return women and their partners to a happier personal and intimate life. Vulvodynia is a legitimate medical entity, with a challenging spectrum of etiologies and clinical presentations, that deserves a rigorous, comprehensive and multidisciplinary approach.
Clinical Management of Vulvodynia
Tips and Tricks
Graziottin, A.; Murina, F.
2011, X, 87 p., Hardcover