Bladder Pain Syndrome / Interstitial Cystitis & Vulvodynia:
two aspects of one syndrome

**AIM OF THE STUDY**

• To determine the impact of IC on sexual function.
• To evaluate the correlation between IC treatment and dyspareunia.
• To evaluate the correlation between IC treatment and Vulvodynia?

**GENITOURINARY EVALUATION**

• Pain, Dyspareunia.
• Tenderness urethra, bladder.
• Q tip touch sensitivity test:
  - Preclitoral area, Anterior fourchette, Interlabial sulci, Minor vestibular sulci, Minor vestibular and Bartholian’s ostia, Posterior fourchette, Perineal skin area.

**VULVODYNIA**

3 main symptoms:
• Redness of the vestibule
• Burning/pain
  (mainly at 5 and 7 o'clock)
• Dyspareunia

Friedrich, 1987
Patients with vulvar vestibulitis syndrome have exquisite pain on vestibular touch, tenderness to touch in the vestibule and physical findings confined to erythema of varying degrees.

Friedrich 1987

Vulvodynia and IC: Parallels Pathologies?

1. The majority of IC patients are women; all vulvodynic patients are female
2. Both diseases affect large numbers of white, perimenopausal, light-skinned women
3. The majority of the most painful areas in vulvodynic patients are posterior, near Bartholin’s glands and fourchette, the portion of vestibule that is of endodermal origin, like the bladder.

Stewart E, Berger B., 1997

Parallels Pathologies? Vulvodynia and IC.

• Because both the vestibule of the vulva and the bladder are derived from the urogenital sinus we proposed the coexistence of the vulvar vestibulitis and interstitial cystitis in some patients represents a generalized disorder of urogenital sinus-derived epithelium


Vulvodynia and IC: Parallels Pathologies?

4. Both conditions are associated with increased capillary growth or angiogenesis. This angiogenesis can be seen through cystoscope in patients with IC and represent the erythematous areas seen in the vestibules of vulvodynic patients.

5. Reflex Sympatetic dystrophy, postulated to occur in IC, has also been studied in vulvodynia, where dilated, inflamed blood vessels are thought to release chemical stimulators of sympathetic nerve fibers in vessel walls.

Parallels Pathologies? Vulvodynia and IC.

Steph E, Berger B., 1997

Increase of Mastcells in the Vestibular mucosa

Mast cells produce NGF with proliferation of the free pain nerve terminals = increase of nociceptors X 10 times

Bornshtein et al. 2001, 2004

Sample Characteristics

90 women with Interstitial Cystitis*

mean duration of symptoms: 4 yr

Age 24-70yr (mean age 41yr)
Married 26 (23.4 %)
Parous 0-1 66 ( 73.3 %)
>=2 24 ( 26.6 %)
Current smokers 20 (22.2 %)
Oral contraception 15 (16.6%)
Spontaneous menopause 12 (13.3%)
Sexually active 49 (54.4%)
Antidepressant use 8 (0.9%)
Antibiotic (chronic use) 74 (82.2%)
Antiflammatory use 19 (21.1%)

*according to NDDK criteria
**Symptoms**

90 women with Interstitial Cystitis*
mean duration of symptoms: 4 yr

- urinary frequency
- urinary urgency
- suprapubic pressure
- pelvic pain
- dyspareunia
- vulvar burning

*according to NIDDK criteria

**Instrumental evaluation**

URINE CULTURE
URETHRAL SWAB
URODYNAMICS
CYSTOSCOPY
POTASSIUM SENSITIVITY TEST

**Symptoms scores**

PUF
VAS
PSYCHOLOGICAL EVALUATION

**VULVODYNIA clinical evaluation**

VAGINAL SWABS
VULVOSCOPY (SWAB TEST)
COLPOSCOPY (Magnification x10) PH vaginal meas.nt
PC TEST

**Q-Tip Touch Test**

Test was performed at the 2,4,6,8,10,12 o’clock positions

- Vulvodynia localized
  - 32 (35.5%)
  - Perineal pain
  - 17 (18.9)
  - Posterior pain
  - 58 (64.4%)

- Vestibular erythematous
  - 23 (25.5)

- Perineal muscle hypertone
  - 21 (23.3%)

**BPS/IC Individual and Polimodal Treatment**

- Dietary Suggestions
- Antacid
- Dimethyl sulfoxide
- Heparin
- PPS
- Amitriptyline
- Gabapentin
- Tens/Biofeedback
- Psychotherapy
BPS/IC and vulvodynia - M. Cervigni et al

### CONCLUSIONS

- There is a significant association between BPS/IC and Vulvodynia.
- The positive terapeutical response of BPS/IC looks to emphasize the favorable effect on the Vulvodynia.
- The psychological component plays an important role in these group of patients.

### FUTURE PERSPECTIVE

- We strongly need prospective and multicenter Trials evaluating the IC treatments and the corresponding evolution of Vulvodynia.
- A more defined instrumental evaluation for the accurate definition of Vulvodynia.
- To define the role of psychological and sexuological evaluation in such subset of patients.