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HYPOTHESIS / AIM OF THE STUDY

Unlike most common causes of urinary incontinence related to the loose muscles (Luber, 2004), women with provoked vestibulodynia (PVD) is affected by a broad range of dysfunctions due to the difficulty of relaxing and coordinating muscles of the pelvic floor (Haefner et al.,2005). This study aims to associate vulvar pain and score of PVD diagnosis and prevalence of self-reported urinary loss.

STUDY DESIGN / MATERIALS AND METHODS

- Randomized Clinical Trial
- 26 women diagnosed with PVD
- Age: 18 and 45 years old
- Randomization into group 1 or 2 (Fig.1)
- 8 sessions, once a week
- Participants were evaluated before and after treatment by gynecologic examination measuring vulvar pain (swab test and analogic pain scale – Fig.2), PVD diagnose score (Friedrich’s score – Table 1) and self-reported urinary incontinence through a structured questionnaire (Fig.3).
- Exclusion criteria: infections or genital cancers, chronic degenerative diseases, neurological disease, antidepressant drugs that interacts with amitriptyline hydrochloride and cardiac pacemaker.

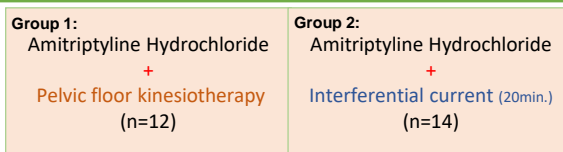


Figure 1: Allocation of participants

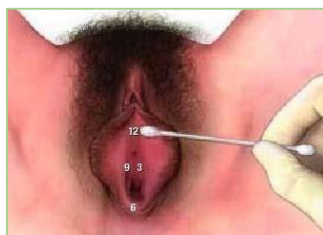


Figure 2: Swab test for vestibulodynia diagnosis. (Pain is rated by patient from 0-10 for each point)

Table 1: Calculation of Friedrich’s score (0-15) for PVD - Friedrich, 1987

Friedrich Criteria for Vulvodynia Diagnosis					
Score	Dyspareunia	Burning	Itching	Swab test	Erythema
0	Absent	Absent	Absent	Negative	Absent
1	Mild pain	Mild	Mild	Weakly positive	Mild
2	Persistent	Moderate	Moderate	Positive	Moderate
3	With intercourse	Severe	Severe	Strongly positive	Severe

Instructions to patient: Considering your symptoms over the last 3 months prior to PVD engage in the treatment, please answer each question below by checking the best response

- | | |
|---|--|
| <p>1. Frequency of urine leak before treating for PVD</p> <p>0 <input type="checkbox"/> Never or less than once a week</p> <p>1 <input type="checkbox"/> From one to three days a week</p> <p>2 <input type="checkbox"/> More than three days a week</p> <p>3 <input type="checkbox"/> Once a day</p> <p>4 <input type="checkbox"/> Always wet</p> | <p>2. Frequency of urine leak after treating for PVD</p> <p>0 <input type="checkbox"/> Never or less than once a week</p> <p>1 <input type="checkbox"/> From one to three days a week</p> <p>2 <input type="checkbox"/> More than three days a week</p> <p>3 <input type="checkbox"/> Once a day</p> <p>4 <input type="checkbox"/> Always wet</p> |
|---|--|

Figure 3: Calculation of Friedrich’s score (0-15) for PVD - Friedrich, 1987

RESULTS AND INTERPRETATION

A high prevalence of stress urinary incontinence was found among women with PVD and no one was in treatment for this dysfunction. They reported decrease of urinary loss after treating for PVD symptoms (table 2).

Table 2: Swab test and Friedrich’s Score of Women with PVD before and after vulvar pain treatment

Variables	Before treatment	After treatment	p value *
	Mean±SD	Mean±SD	
With Urinary Incontinence			
Swab test	18.59±5.8	8.06±5.7	0.0007
Friedrich’s Score	10.12±2.5	6.41±3.1	<0.001
Without Urinary Incontinence			
Swab test	21.11±5.5	10.33±10.4	0.02
Friedrich’s Score	9.33±2.1	6.56±3.0	0.001

*Wilcoxon test comparing urinary loss before and after treatment.

Before treatment for vulvar pain, total pain rating for swab test was 19.8 (±5.6) and Friedrich’s score was 9.7 (±2.3). There were no difference (p>.05) between means for these scores for women with and without urinary incontinence before or after treatment (table 3).

Table 3: Prevalence and frequency of UI among women with PVD before and after vulvar pain treatment

Variables	Before treatment	After Treatment	p value *
	% (n=26)	% (n=26)	
Women with Urinary Incontinence	65.3 (n=17)	42.2 (n=11)	0.0009
Frequency of urinary loss			
More than three days a week	30.6 (8)	3.8 (1)	<0.001
Until three days a week	34.7 (9)	30.8 (8)	0.73
Never or very rare (less than once a week)	34.7 (9)	65.4 (17)	<0.001

*Wilcoxon test comparing urinary loss before and after treatment.

Prevalence of UI was similar for both treatment groups (ET: 71.42 [n=10] vs. PFM exercises: 58.3% [n=7], p>.05). Because of the small number of patients due to the pilot character of this study, our results were analyzed with both types of treatment together. Swab test pain rate and Friedrich’s score were significantly smaller after both treatments (p<.05).

CONCLUSION

Women with PVD have high prevalence of stress urinary incontinence and those who are efficiently treated to diminish vulvar pain can improve frequency of urinary loss. However, trials assessing more participants and with longer follow-up is required, as this is a pilot study.