EFFICACY OF RADIOFREQUENCY AND MYOFASCIAL PAIN #663 SYNDROME TREATMENT IN POSTPARTUM PELVIC PERINEAL PAIN: **A FEASIBILITY STUDY**

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HYPOTHESIS

Pelvic-perineal pain is characterized by sensations of pain in the <u>pelvic, perineal</u> and genital regions, and may be associated with other pelvic floor dysfunctions such as **sexual dysfunctions.** It is an increasingly significant issue in women's health, particularly when it persists over time as it impacts the quality of life of affected women.

Pelvic-perineal physiotherapy has been established as an effective intervention in managing postpartum pelvic-perineal pain concerning pelvic floor strength and sexual function.

Radiofrequency has emerged as a promising therapeutic technique in this field, showing benefits in collagen reorganization, scar healing and muscle unction. In this context there is a need to investigate effective therapeutic interventions to alleviate pain and improve the sexual function and quality of life of these women.

The **hypothesis** of the study is that the combination of pelvic-perineal physiotherapy with radiofrequency can significantly improve postpartum pelvicperineal pain, sexual function, and quality of life in postpartum women.



Main objective

To analyze the effects of a multimodal intervention of pelvic-perineal physiotherapy and radiofrequency in women with postpartum pelvic-perineal pain.



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The **baseline characteristics** of the participants are presented in **Table 1**.

Table 1. Baseline and obstetric characteristics of the participants N=14	
Age \bar{x} (SD)	35,37(2,5)
Body mass index \bar{x} (SD)	26,10(5,06)
Parity	
- Primiparous % (n)	86% (12)
 Multiparous ≥ 2 pregnancies % (n) 	14% (2)
Type of delivery	
- Vaginal % (n)	93% (13)
- Instrumental % (n)	7% (1)
Episiotomy, % (n)	57% (8)
Perineal tear, % (n)	21% (3)
Sexual activity (%)	36% (5)
SD: Standard deviation PFD: Pelvic Floor Disease	

RESULTS AND INTERPRETATION

Improvements were observed in pain (VAS) and in sexual function (FSFI) in both treatment groups (Figure 1), with the radiofrequency experimental group showing superior results. However, there were no statistically significant differences between the two treatment groups.



Secondary objective

To assess the feasibility of a multimodal intervention of pelvic perineal physiotherapy and radiofrequency in postpartum women to propose a future randomized clinical trial.

STUDY DESIGN, MATERIALS AND METHODS

Study design: A two-armed parallel-group randomized controlled feasibility study as a pilot study.

<u>Participants</u>: Primiparous or multiparous **postpartum women** with an eutocic or instrumental delivery and experiencing pelvic-perineal pain equal to or greater than 4 cm on the Visual Analog Scale.

Assessment: Two pre-intervention and post-intervention assessments were carried out by a Women's Health physiotherapist, blinded to the intervention group of the participants. These experts obtained informed consent from the participants.

Variables: The first assessment included baseline characteristics (anthropometric data, occupational activity, age, etc.) of the participants.

- **Primary variables:**
 - Pain \rightarrow Visual Assessment Scale (VAS)
 - Female Sexual Function \rightarrow Female Sexual Function Index (FSFI) questionnaire
- Secondary variables:
 - <u>Quality of pelvic floor muscles</u> \rightarrow Modified Oxford Scale
 - <u>Specific quality of life</u> \rightarrow Pelvic Floor Distress Inventory (PFDI-20)
 - <u>Urinary and bowel symptoms</u> \rightarrow Pelvic Floor Impact Questionnaire (PFIQ-7)
 - Adherence \rightarrow Attendance at treatment sessions

Interventions: The physiotherapy interventions for both groups were performed by a different physiotherapist specialized in Women's Health. Participants were randomly assigned to two intervention groups.

- 1. Pelvic-perineal physiotherapy control group.
- 2. Pelvic-perineal physiotherapy + radiofrequency intervention group.

Participants received 12 sessions, lasting 45 minutes, with a frequency of 2 sessions per week, for 6 weeks.

Figure 1. Changes in a)Pain b)Female Sexual Function Index

The score on the Modified Oxford Scale demonstrated an improvement in muscle contraction capacity in both groups, with most participants being able to perform resistance exercises. There was an improvement in relaxation capacity and awareness of contraction in all participants.

Additionally, an increase in specific quality of life (PFDI-20) and a decrease in urinary and bowel symptoms (PFDI-20, PFIQ-7) was observed in participants from both groups. Furthermore, good adherence to the treatment was noted in both groups, along with high satisfaction with the intervention.

Interpretation of results: the results suggest that the combination of pelvic floor physiotherapy and radiofrequency may be effective in treating postpartum pelvic pain, improving various aspects of pelvic health and the quality of life of postpartum women. The adherence and satisfaction with the treatment indicate that this intervention is well tolerated and accepted by the participants.

Based on this pilot study, the feasibility and acceptability of the proposed intervention are good in terms of recruitment capacity, adherence, available material and human resources, and selected variables. It is proposed to conduct a statistical analysis to determine if the type of delivery and the use of instrumentation or not could be confounding factors.

These findings support the importance of multimodal approaches in pain management.

CONCLUSIONS

The study provides preliminary evidence on the effectiveness of radiofrequency and pelvic floor physiotherapy in treating postpartum pelvic pain, as the combination of both strategies shows promise in terms of sexual function, quality of life and muscle strength.



Statistical analysis: A descriptive analysis was performed using means and standard deviations; and means and medians based on normality assessed by the Shapiro-Wilks test. Categorical variables were expressed as numbers and percentages. Inferential statistics included the t-Student test and Mann-Whitney U test, as well as differences in means and medians, for analyzing results based on normality or non-normality, respectively.

Additionally, the implementation of a combined pelvic floor physiotherapy and radiofrequency intervention in postpartum women with pelvic pain is feasible. To confirm the results, a randomized clinical trial with a larger sample size is needed.

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