ABENFISIO

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UROGYNECOLOGICAL SYMPTOMS AND PELVIC FLOOR MUSCLE TENDER POINTS IN WOMEN WITH AND WITHOUT FIBROMYALGIA: A CONTROLLED CROSS-SECTIONAL STUDY

SINTOMAS UROGINECOLÓGICOS E PONTOS DOLOROSOS NOS MÚSCULOS DO ASSOALHO PÉLVICO EM MULHERES COM E SEM FIBROMIALGIA: UM ESTUDO TRANSVERSAL CONTROLADO

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ABSTRACT

Aims: To compare the urinary, sexual, and vaginal symptoms frequency, Pelvic Floor Muscles (PFM) tender points, and pain severity in women with and without fibromyalgia. **Methods**: Cross-sectional study composed of women with fibromyalgia (fibromyalgia group – FMG) and without it (control group – CG) assessed by: a) sexual (Female Sexual Function Index – FSFI); b) vaginal (International Consultation on Incontinence Questionnaire ICIQ-Vaginal Symptoms); c) urinary (ICIQ: Urinary Incontinence Short Form ICIQ-UI SF and ICIQ-Overactive Bladder ICIQ-OAB); d) quality of life (King's Health Questionnaire – KHQ), as well as digital palpation assessment of tone (average, increased or decreased), tender points (position by clock-face), and pain severity (numeric rating scale – NRS). Statistical analysis included Student's t-test, Wilcoxon-Mann-Whitney's, Logistic Regression, and Spearman's Correlation (significance level: 5%). **Results**: Of the 84 women enrolled, 39 FMG and 39 CG completed the study. No differences in urinary or vaginal symptoms were found. FMG presented lower FSFI (FMG: 7.2; CG: 21.6; p<0.001), more PFM tender points (FMG: 10 (25.6%); CG: 1 (2.6%); p=0.03), more excellent quality of life impairment (FMG: 5, CG: 4; p=0.01) and sleep/energy (FMG: 5, CG: 2, p<0.01) both KHQ domains. The pain severity was FMG: 4 (1-6); CG: 7(7); p=0.05. **Conclusion**: More PFM tender points, more significant impairment in sexual function, as well as in the quality of life were all more frequent in women with fibromyalgia when compared to healthy controls. However, the correlation between sexual function and PFM pain was low.

Keywords: Pain, Urinary Incontinence, Overactive Bladder Symptoms, Quality of Life, Rehabilitation.

RESUMO

Objetivos: comparar a frequência dos sintomas urinários, sexuais e vaginais, os pontos sensíveis dos Músculos do Assoalho Pélvico (MAP) e a gravidade da dor em mulheres com e sem fibromialgia. **Métodos**: estudo transversal composto por mulheres com fibromialgia (grupo com fibromialgia – GFM) e sem (grupo controle, GC) avaliadas por: a) sexual (Female Sexual Function Index – FSFI); b) vaginal (International Consultation on Incontinence Questionnaire – ICIQ-Vaginal Symptoms); c) urinária (ICIQ: Urinary Incontinence Short Form – ICIQ-UI SF e ICIQ-Overactive Bladder – ICIQ-OAB); d) qualidade de vida (King's Health Questionnaire – KHQ), bem como avaliação por palpação digital de tônus (normal, aumentado ou diminuído), pontos sensíveis (posição pela face do relógio), e gravidade da dor (escala de classificação numérica – numeric rating scale – NRS). A análise estatística incluiu o teste t de Student, Wilcoxon-Mann-Whitney, regressão logística e correlação de Spearman (nível de significância: 5%). **Resultados:** das 84 mulheres inscritas, 39 GFM e 39 GC concluíram o estudo. Não foram encontradas diferenças nos sintomas urinários ou vaginais. O GFM apresentou FSFI mais baixo (FM: 7,2; GC: 21,6; p<0,001), mais pontos dolorosos no MAP (GFM: 10 (25,6%); GC: 1 (2,6%); p=0,03), maior comprometimento da qualidade de vida (GFM: 5, GC: 4; p=0,01) e do sono/energia (GFM: 5, GC: 2, p<0,01) em ambos os domínios do KHQ. A gravidade da dor foi: GFM: 4 (1-6); GC: 7(7); p=0,05. **Conclusões:** mais pontos sensíveis do MAP, maior comprometimento da função sexual, bem como da qualidade de vida, foram mais frequentes em mulheres com fibromialgia quando comparadas a controles saudáveis. Entretanto, a correlação entre a função sexual e a dor no MAP foi baixa.

Palavras-chave: Dor, Incontinência Urinária, Sintomas de bexiga hiperativa, Qualidade de Vida, Reabilitação.

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INTRODUCTION

Fibromyalgia (FM) is a complex syndrome with 2-4% prevalence in the world population, characterized by the dominant symptom of chronic widespread musculoskeletal pain, along with other frequent symptoms such as fatigue, non-restoring sleep, mood disorder, and cognitive impairment[1]. The condition is believed to have a 2:1 female predominance and commonly arises around the fourth decade of life[2-4].

FM clinical diagnosis is based on the presence of tender points associated or Generalized pain, defined as pain in at least 4 out of 5 regions with Symptom Severity (SS), according to the American College of Rheumatology, or based on the multisite pain (MSP), according to the American Pain Society Pain Taxonomy: a 0–9 count of the number body sites reported as painful (the sites consisting of the head, right arm, left arm, chest, abdomen, upper back and spine, lower back and spine (including buttocks), left leg and right leg with moderate to severe sleep problems or mild to severe fatigue[3-5].

FM pain is characterized as nociplastic pain, with changes that increase the sensitivity of the control system. This usually decides which stimuli should be interpreted as painful and which should not. Its pathophysiology appears to be governed by a disturbance in the central processing of the pain signal, which leads to an increase in the expression of neurotransmitters that exacerbate pain or sensory perception (e.g., glutamate and/or nerve growth factor) and a decrease in activity. of the mechanisms involved in the inhibition of pain, as well as those related to the sensory processing of pain (e.g., serotonin, norepinephrine or γ-aminobutyric acid)[1,6].

Among women diagnosed with FM, there are frequent reports of pelvic floor dysfunction, including associations with specific pain syndromes such as pelvic and bladder pain[1]. Furthermore, Goldberg, Tamam, and Weintraub reported a clear association between overactive bladder (OAB) and FM[7]. Perineal assessment through digital palpation per vaginal exam enables the examinator to find Pelvic Floor Muscles (PFM) tender points, which have been demonstrated to be frequent in women with chronic pelvic pain and/or bladder pain syndromes[8].

Chronic pelvic pain and bladder pain, as well as FM, have been characterized as functional or sensory hypersensitivity pain disorders1 and non-specific treatments focused on pain relief have been used; pharmacological treatment alone is inadequate for the majority of patients who suffer from FM[6,9].

Generally, in clinical practice, patients seek specialized treatment with a rheumatology specialist professional for a first approach and postpone urogynecological investigation, which could compromise the treatment. Considering the need to have a multidisciplinary team involved in the clinical diagnosis and treatment of women with FM, it has become increasingly relevant to investigate the PFM signs and symptoms among women with FM. This study aimed to investigate and compare the frequency of urogynecological symptoms (sexual, vaginal, and urinary symptoms) and PFM tender points, as well as pain severity in women with and without an FM diagnosis.

METHODS

Study design, setting, and participants

Cross-sectional study, performed at the UroPhysiotherapy Laboratory from the Postgraduate Program in Rehabilitation Science of the Federal University of Alfenas (UNIFAL-MG), with women selected through the public healthcare system at Alfenas, Minas Gerais – Brazil, from May 2017 to June 2018, after approval from the university's Ethics and Research Committee (Register: CAAE: 64594017.8.0000.5142; approval number: 2.073.641), following the ethical precepts regulated by Resolution n. 466/12 of the National Health Council and the Helsinki Declaration requirements.

Eligibility criteria

Women aged 18 years or older referred by health professionals to the physical therapy clinic at UNIFAL-MG who agreed to sign the Informed Consent Form were eligible to participate in the study.

Diagnostic criteria for FM points considered the Widespread Pain Index (WPI) and Symptom Severity (SS), following combined cutoff points WPI>7 and SS>5 or WPI 3–6 and SS>9, assessed through algometry with cutoff point of 4.0 kilograms per square centimeter (kg/cm2) for the pain threshold (EMG System do Brasil®), and was always performed by a physician, with the patient in orthostatic position10. Women who did not meet the American College of Rheumatology diagnostic criteria for FM were excluded from the fibromyalgia group (FMG)[10].

Exclusion criteria were: pregnancy or postpartum period; cancer (history or active); pelvic radiotherapy; neurological abnormalities, other associated rheumatic diseases; never having had sexual intercourse with vaginal penetration; inability to perform the proposed exams; initial complaint compatible with chronic pelvic pain.

Variables, data sources, and measurements

Sexual, vaginal, and urinary symptoms were assessed by the following validated questionnaires: Female Sexual Function Index (FSFI), which consists of desire, arousal, vaginal lubrication, orgasm, sexual satisfaction, and pain domains[11]. The domain scores are calculated by summing up the question's scores and multiplying by the domain`s corresponding factor. The score ranges from 2 (worst sexual function) to 36 (best sexual function). The International Consultation on Incontinence Questionnaire – Vaginal Symptoms (ICIQ-VS) is composed of 14 questions divided into three independent scores: 0-53 vaginal symptoms subscale (VSS); 0-58 sexual symptoms score (SSS) and 0-10 overall impact on quality of life subscale (QoL)[12]. The International Consultation on Incontinence Questionnaire Urinary Incontinence – Short Form (ICIQ UI-SF) assesses the frequency, severity, and impact of UI on QoL, ranging the total score from 0 to 21[13]. The International Consultation on Incontinence Overactive Bladder Questionnaire (ICIQ-OAB) aims to evaluate overactive bladder symptoms, with a total score ranging from 0 to 16[14]. The King's Health Questionnaire (KHQ) considers the following domains: QoL (2 to 9); role limitations (0 to 8), physical limitations (0 to 8), social limitations (0 to 8); personal relationships (0 to 12); emotions (3 to 12); sleep/energy (2 to 8) and incontinence severity measures (5 to 20), with a total score ranging from 18 to 85[15]. Higher scores in the ICIQ-VS, ICIQ-IU-SF, ICIQ-OAB, and KHQ express greater severity of symptoms.

Digital palpation tests of PFM during the resting state: A stretching pressure of the palmar surface of the examiner's digit was applied perpendicularly on the levator ani area to assess the tone categorized as usual, decreased or increased. The tender point, defined as the area of localized tenderness, which can occur in the muscle, muscle-tendon junction, bursa, or fat pad[16], was also assessed through digital palpation, and its location was recorded based on the vaginal clock position (considering 12 o'clock as the anterior vaginal wall). Pain severity of each tender point was also assessed according to a numeric rating scale (NRS) from 0 (no pain) to 10 (worst pain)[16-17]. Additionally, the presence of palpable scars and skin adherence were identified by digital palpation and categorized either as present or absent. Evaluations were performed with the finger-tip palpation along the vaginal walls seeking for palpable scars. When identified, the presence or lack of adhesion was verified by trying to slide the scar in all directions. Moreover, the mobility of the vaginal wall tissue, secondary to episiotomy, was also recorded as present or absent.

Bias

The consultation consisted of a screening to investigate demographic and clinical data followed by WPI through an algometry (EMG System do Brasil®) exam and SS following the American College of Rheumatology FM diagnostic criteria[10]. These assessments determined the inclusion of FMG participants in the study. The onset of menopause was considered as one year after the absence of menstrual flow[18]. A subject reporting previous or current estrogen use, either orally or topically, was classified as being through hormone replacement therapy (HRT).

The clinical symptoms were evaluated

through validated, translated, and adapted questionnaires recommended by ICS[19]. Digital palpation was performed by a single trained researcher (TS) experienced in physiotherapy areas of women's health (SB) and rheumatology (LEPPT).

The research followed the Good Clinical Practice Guidelines, adopting the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines and the IUGA/ICS recommendations procedures and reports on the terminology for pelvic floor muscle assessment[17]. After concluding their participation in the research, women received guidance and were invited to be treated in the physical therapy clinic at UNIFAL-MG.

Study size

The sample size calculation was based on a pilot study with 10 women (statistical power of 80% and α error of 5%, using BioEstat software—Brazil), which suggests the inclusion of 39 women with FM (FMG) and 39 without FM (control group – CG). Therefore, based on the sexual function assessment (FSFI total score) variable, 78 women were needed for this study.

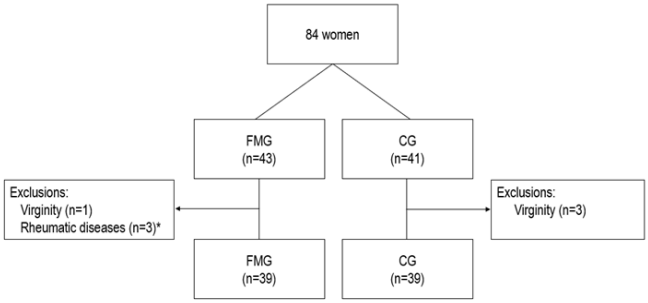
Statistical Analysis

The data were expressed in absolute or relative frequencies, with average, standard deviation, and median followed by maximum and minimum. The Shapiro-Wilk test was used to verify the normality of variables. To compare FMG and CG groups, Student's t-test was used for parametric variables and Wilcoxon--Mann-Whitney's test for non-parametric variables. Logistic regression tests and Spearman's Correlation (coefficients below 0.5 were considered as "poor correlation"; from 0.5 to 0.75, "moderate correlation" and above 0.75 "strong correlation") were used[20]. Microsoft Office Excel 2013®, BioEstat 5.3, and Gpower 3.1 software were used, with a significance level of 5%.

RESULTS

Figure 1 shows the study population, which consisted of 84 women previously selected and divided into two groups (FMG and CG). After eligibility criteria analysis, 39 women remained in the study.

Figure 1. Study population



Legend:
FMG: Women with fibromyalgia
CG: Control group
*Rheumatic diseases: Sjögren syndrome (n=1) and rheumatoid arthritis (n=2)

Table 1 describes both groups' demographic and clinical characteristics (FMG and CG), including obstetric, hormonal, and sexual information.

Table 1. Clinical and demographic characteristics of the participants

Variables	FMG (n=39)	CG (n=39)	p-value
Self-declared skin color, f (%)			
White	22 (56.4%)	24 (61.5%)	0.65[a]
Others	17 (43.6%)	15 (38.5%)	
Marital status, f (%)			
Married	22 (56.4%)	28 (71.8%)	0.28
Divorced/ Widow	14 (35.9%)	8 (20.5%)	
Single	3 (7.7%)	3 (7.7%)	
Education level, f (%)			
Less than 8 years	22 (56.4%)	12 (30.8%)	**<0.01**[a]
8 up to 11 years	12 (30.8%)	9 (23.1%)	
15 years or more	5 (12.8%)	18 (46.1%)	
Occupation, Employed, f (%)	21 (53.9%)	21 (53.9%)	0.5 [a]
Age, years old, mean (SD)	56.3 (± 9.9)	54.5 (±12.3)	0.47[a]
BMI, kg/m², mean (SD)	30.4 (± 5.6)	29.7 (± 6.1)	0.61[a]
Parity, median (min-max)	3 (0-8)	2 (0-7)	0.05[b]
Mode of delivery			
Cesarean section, median (min-max)	1 (0-3)	1 (0-2)	0.39[b]
Vaginal birth, median (min-max)	2 (0-8)	0 (0-6)	0.13[b]
Episiotomy, f (%)	21 (80.8%)	16 (88.9%)	0.32[a]
Menopause, f (%)§	30 (76.9%)	22 (56.4%)	0.11[a]
HRT, f (%)	4 (10.3%)	9 (23.1%)	**<0.001**[a]
Sexual activity, f (%)	24 (61.5%)	32 (80.1%)	0.11[a]

Descriptive statistics of the participants. The data are expressed in frequency (f) and percentage (%) of the total for categorical data and in mean and standard deviation (± SD) or median (min-max) for numerical data. Statistically significant p-values are in bold ($p<0.05$).
aStudent's t-test; bWilcoxon-Mann-Whitney test.
FM: fibromyalgia
SD standard deviation
BMI body mass index
HRT hormone replacement therapy
§Menopause was considered from one year of absence of menstrual flow.

More significant impairment of sexual function was found among women with FM compared with those without FM, with significant statistical differences for all domains of the IFSF, as well as for the domains of QoL and sleep/energy of the KHQ. Table 2 shows urinary and vaginal symptoms, sexual function, and QoL investigated by validated questionnaires.

Table 2. Urinary and vaginal symptoms, sexual function, and quality of life were investigated by validated questionnaires

Variables	FMG (n=39)	CG (n=39)	p-value
Self-declared skin color, f (%)			
White	22 (56.4%)	24 (61.5%)	0.65[a]
Others	17 (43.6%)	15 (38.5%)	
Marital status, f (%)			
Married	22 (56.4%)	28 (71.8%)	0.28
Divorced/ Widow	14 (35.9%)	8 (20.5%)	
Single	3 (7.7%)	3 (7.7%)	
Education level, f (%)			
Less than 8 years	22 (56.4%)	12 (30.8%)	**<0.01**[a]
8 up to 11 years	12 (30.8%)	9 (23.1%)	
15 years or more	5 (12.8%)	18 (46.1%)	
Occupation, Employed, f (%)	21 (53.9%)	21 (53.9%)	0.5 [a]
Age, years old, mean (SD)	56.3 (± 9.9)	54.5 (±12.3)	0.47[a]
BMI, kg/m^2, mean (SD)	30.4 (± 5.6)	29.7 (± 6.1)	0.61[a]
Parity, median (min-max)	3 (0-8)	2 (0-7)	0.05[b]
Mode of delivery			
Cesarean section, median (min-max)	1 (0-3)	1 (0-2)	0.39[b]
Vaginal birth, median (min-max)	2 (0-8)	0 (0-6)	0.13[b]
Episiotomy, f (%)	21 (80.8%)	16 (88.9%)	0.32[a]
Menopause, f (%)[§]	30 (76.9%)	22 (56.4%)	0.11[a]
HRT, f (%)	4 (10.3%)	9 (23.1%)	**<0.001**[a]
Sexual activity, f (%)	24 (61.5%)	32 (80.1%)	0.11[a]

Data presented as median (minimum-maximum). Wilcoxon-Mann-Whitney test ($p<0.05$) in bold.
FM: fibromyalgia
ICIQ-UI SF: International Consultation on Incontinence Questionnaire – Urinary Incontinence Short Form
ICIQ-OAB: International Consultation on Incontinence Questionnaire – Overactive Bladder
ICIQ-VS: International Consultation on Incontinence Questionnaire – Vaginal Symptoms and domains Vaginal Symptoms Score (VSS), Sexual Symptoms Score (SSS) and Quality of Life (QoL)
FSFI: Female Sexual Function Index and domains desire, arousal, lubrication, orgasm, satisfaction and pain
KHQ: King's Health Questionnaire and domains quality of life, role limitations, physical limitations, social limitations, personal relationships, emotions, sleep/energy, and incontinence severity measures

Table 3 shows the frequency of tone abnormalities, tender points, and pain severity according to NRS. No statistical differences between the groups regarding tone classification or palpable scar were found. However, the number of tender points was more significant in the FMG compared to CG (10 [25.6%] vs. 1 [2.6%]; p=0.03). Pain severity also differed between the groups, with a median of 4 (1-6) in the FMG and 7 (7) in CG; p=0.05.

Table 3. Frequency of the tone abnormalities, tender points, and pain in the PFM, comparing FM and control group

Variables	FMG (n=39)	CG (n=39)	p-value
PFM Tone, f (%)			
Normal	27 (69.2%)	23 (59%)	**0.09**
Decreased tone	8 (20.5%)	14 (35.9%)	
Increased tone	4 (10.3%)	2 (5.1%)	
Tender Points, f (%)	10 (25.6%)	1 (2.6%)	**0.03**
Pain (NRS), median (min-max)	4 (1-6)	7 (7)	**0.05**[a]

The data are expressed in frequency (f) and percentage (%) or median (minimum-maximum). Wilcoxon-Mann-Whitney test ($p<0.05$) in bold.
FM: fibromyalgia
PFM: pelvic floor muscles
NRS: numeric rating scale

Figure 2 depicts the areas of tenderness located in the PFM recorded using a clock face as a reference (considering 12 o'clock the anterior/ ventral), along with their rated pain severity, according to the NRS (0-10), whenever the participant referred to an area of localized tenderness.

Figure 2. Distribution of tender points in PFM evaluated by digital palpation in women with and without fibromyalgia

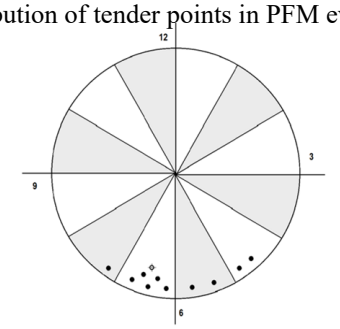


Figure 2 presents the distribution of tender points (area of localized tenderness occurring in muscle [15]).
FMG: Fibromyalgia group
CG: Control group

It was observed that six of the ten women in the FMG with PFM tender points presented equivalent points (same palpable area situated in vaginal clock face position) on the episiotomy scar tissue. However, after applying a logistic regression model, no association was found between PFM tender points and episiotomy (OR=0.53, IC=0.03-10.71, p=0.67), scar (OR=2.03, IC=0.10-41.01, p=0.64) or adherent skin (OR=2912.45, IC=0-∞, p=0.87).

Additionally, a poor correlation between FSFI total score and NRS (r=-0.327, p=0.041) was found, inferring a low correlation between sexual function and pain intensity of tender points in the PFM.

DISCUSSION

Our findings demonstrate that the sexual function of women with FM was reduced in women with FM compared with healthy controls, which corroborates with the studies by Mutti et al. and Fusco et al., using the FSFI21 and the Sexual Quotient-Females (SQ-F)[21-22] questionnaires.

Our findings also showed worse sexual function and scored lower in all FSFI domains in the FMG, along with a more significant number of PFM tender points. These findings align with Adams, Osmundsen, and Gregory[23], who found – a 3.8 times greater chance of women with FM presenting levator myalgia on examination. Phillips et al.[24] demonstrated that FM women presented more pain in the posterior vaginal wall compared with women without FM.

Fusco et al.[22] consider that the presence of chronic pain, fatigue, poor sleep quality, depression, irritability, and altered body image were all typical symptoms of FM in the present study, interfering in desire, sexual intercourse, and on orgasm, which could justify the commitment of all sexual function domains found in our research.

A higher frequency of sexual pain among women with FM assessed through the pain domain of the FSFI was also found. It was expected that tender points' pain intensity would already hurt the FSFI total score. It can be assumed that painful sexual experiences could trigger anxiety and cognitive distortions such as pain catastrophizing – common characteristics among individuals with FM[25]. Therefore, cognitive behavioral treatments focused on adaptive management and control of catastrophizing and negative emotional states may help manage tender points.

Studying middle-aged women, Trento, Madeiro and Rufino[26] and Nazarpour et al.[27] concluded that post-menopausal women tend to present a higher risk of sexual dysfunction. In our study, despite CG having presented sexual dysfunction, a much higher prevalence of such dysfunction was verified in the FM group. Despite the HRT difference between the groups, the menopause status and age were similar, which allowed for comparison between women with and without FM.

About KHQ domains, a higher score in sleep/energy and QoL domains (with an impact over general health perception) among FMG women was observed. Sarzi-Puttini et al. write that after pain, sleep disorders are among the most frequent symptoms of FM. Non-restorative sleep is particularly prevalent in FM patients. Even when the quality and duration of their sleep appear normal, these individuals frequently report a persistent sense of inadequate rest[1]. Similarly, comparing women with and without FM, Fusco et al.[28] found worse scores for women with FM in health perception and sleep/energy domains with the application of KHQ.

Our study did not show a significant difference between vaginal and urinary symptoms when compared to women with and without FM. No differences in PFM tone were found. Fusco et al.[28] showed more frequent lower urinary tract symptoms (LUTS) in women with FM, with the odds of 5.03 higher LUTS.

Goldberg, Tamam and Weintraub found an association between FM and overactive bladder. However, no association between FM and OAB symptoms was found in our study. Nevertheless, we selected women from the public healthcare system for the group without FM. Accepting

to participate in the study may have been higher among those with urogynecological symptoms, with interest in future treatment at the physical therapy clinic, which we consider a pitfall of the survey.

According to Siracusa et al.[6], pharmacological treatment alone is insufficient for most patients with FM syndrome. Due to the complex nature of pain sensitivity in FM, effective management always requires a multidisciplinary approach. This approach should address the various factors contributing to chronic pain, including the condition's peripheral, central, cognitive-emotional, and interpersonal aspects. Additionally, FM can occur alone or, with some frequency, occur concomitantly with other conditions such as irritable bowel syndrome, interstitial cystitis, and tension headache (disorders with similar pathophysiology), requiring even broader treatments.

The lack of blinding by the researcher and the non-use of an algometer (palpometer with a digital vaginal sensor) to measure the painful response to a pressure stimulus (as was done for FM points with WPI) were limiting factors in this study. Vaginal algometry would facilitate the objective quantification of pressure pain threshold and tolerance, which could be considered for future studies.

CONCLUSION

Considering the relation between FM and pelvic floor dysfunctions, we suggest that the clinical approach for women with FM includes attention to function/dysfunction signs and urogynecological symptoms, in particular, sexual dysfunction, since it was concluded that women with FM presented higher frequency of PFM tender points, more significant impairment of sexual function and a higher impact from urinary incontinence over QoL and sleep/energy.

Pharmacological treatment alone is insufficient. Due to the complex nature of pain sensitivity in FM, effective management always requires a multidisciplinary approach. Cognitive behavioral treatments focused on adaptive management and control of catastrophizing may be helpful, in addition to managing tender points in the pelvic floor.

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