

Introduction

The genitourinary syndrome of menopause (GSM) occurs in women that get to the menopausal period in a natural and progressive way or in the ones who need hormone-blocking treatments. In patients with a history of cancer, as they present sudden hormonal suppression, made by chemotherapy or surgery, there is a theoretical potential for these women to develop more severe GSM by inducing an early menopause.

The aim of this study is to compare the severity of vaginal atrophy in patients with oncologic and non-oncologic GSM and characterize the urinary, sexual, and genital symptoms found in the studied population.

Methods and Materials

This is an analytical cross sectional study involving women who were included in two clinical trials and who signed an informed consent form to participate in the research.

One group included women with previous breast cancer diagnoses treated with LED for GSM and the other group included women without cancer diagnoses treated with nonablative radiofrequency for GSM, from January 2017 until September 2020.

Self-reported urogynecological symptoms were assessed using a Numeric Visual Scale (NVS); physical and cytological evaluation were assessed by Vaginal Maturation Index (VMI) and Vaginal Health Index (VHI); and four questionnaires were used to assess urinary incontinence, sexual function and genital self-image: International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF), Female Sexual Function Index (FSFI), Female Sex Quotient (SQ-F) e Female Genital Self-Image Scale-7 (FGSIS-7).

Data collection was carried out by reviewing the records of the participants from categorized forms of the service and the data tabulated in SPSS.

The sample size was established using a Winpepi calculator (version 11.65): 66 patients, 33 in each group, would be enough to detect a difference of 10 points in the VMI between the oncological and the non-oncological groups (considering a standard deviation of 15 and 8 in each group) [1].

The Kolmogorov-Smirnov normality test was used, determining normality in all variables, and Student's t tests were used to analyze the numerical data, in addition to the Chi-square for the evaluation of qualitative variables with a power of 80% and an alpha of 5%. The study was approved by the Ethical Committee.

Results

Of the 66 patients, 33 were part of the oncological group and 33 of the non-oncological group, with a mean age of 51.88 (± 7.71) years and 56.82 (± 4.93) years, respectively ($p=0.003$). All urogynecological symptoms reported by patients are shown in table 1, with the most prevalent being vaginal dryness, sexual dysfunction, dyspareunia and vaginal itching. The physical, cytological, and questionnaire evaluations are shown in table 2. From these only the FGSIS-7 showed statistical differences between the groups ($p=0.02$). In relation to the VMI, the oncological group had 31.0 (± 25.4) and the non-oncological had 37.4 (± 25.2), both classified as "severe atrophic", without statistical difference ($p=0.29$).

Table 1. Genitourinary signs and symptoms of the sample of patients with GSM, with or without breast cancer, attended in clinical studies.

Variables	Oncological n (%)	Non-Oncological n (%)	P value
Voiding urgency	13 (19.7)	12 (18.2)	0.80
Dysuria	10 (58.8)	7 (41.2)	0.39
Voiding burning sensation	9 (13.6)	6 (9.1)	0.37

*It continues...

Table 1 Continues. Genitourinary signs and symptoms of the sample of patients with GSM, with or without breast cancer, attended in clinical studies.

Variables	Oncological n (%)	Non-Oncological n (%)	P value
Urinary effort	7 (10.6)	3 (4.5)	0.17
Nocturia	7 (10.6)	7 (10.6)	1.00
Stress urinary incontinence	12 (18.2)	11 (16.7)	0.79
Frequent vaginal discharge	9 (13.6)	4 (6.1)	0.12
Vaginal heaviness	7 (10.6)	8 (12.1)	0.76
Vaginal dryness	32 (48.5)	33 (50)	1.00
Dyspareunia	25 (37.9)	27 (40.9)	0.54
Vaginal laxity	8 (12.1)	10 (15.2)	0.58
Vaginal Itchy/pruritus	14 (21.2)	16 (24.2)	0.62
Vaginal burning sensation	9 (13.6)	14 (21.2)	0.19
Pain in vaginal introitus	12 (18.2)	9 (13.6)	0.42
Active sexual life	25 (37.9)	24 (36.4)	0.77
Desire	19 (28.8)	22 (33.3)	0.32
Sexual dysfunction	29 (43.9)	24 (36.3)	0.31

* chi-square test was used in the variables analyses.

Table 2. Genitourinary signs and symptoms of the sample of patients with GSM, with or without breast cancer, attended in clinical studies.

Variables	Oncological Mean (\pm SD)	Non-Oncological Mean (\pm SD)	P value
VHI	15.3 (4.5)	16.1 (4.2)	0.43
VMI	31.0(25.4)	37.4(25.2)	0.29
Sex quotient n (%)	31(100)	33(100)	0.48*
Good to excellent	2(6.4)	5(15.2)	
Regular to good	7(22.6)	4(12.1)	
Unfavorable to regular	9(29.0)	10(30.3)	
Bad to unfavorable	10(32.3)	13(39.4)	
Null to bad	3(9.7)	1(3.0)	
Sex quotient score	48.8(20.8)	51.0(22.9)	0.69
FGSIS-7	18.5 (3.5)	20.6 (3.6)	0.02
ICIQ-SF			
Urinary incontinence n (%)	21 (65.6)	14 (42.4)	0.10*
Score	6.3 (6.6)	4.5 (6.3)	0.28
NVS			
Vaginal dryness	7.2 (2.8)	7.3 (2.6)	0.86
Pain during sexual intercourse	6.7 (3.1)	5.5 (3.2)	0.29
Vaginal laxity	2.4 (3.0)	2.5 (3.2)	0.92
Vaginal Itchy/pruritus	1.8 (3.0)	2.3 (3.4)	0.47
Burning sensation	3.5 (3.8)	2.3 (3.0)	0.19
Vaginal pain	1.2 (2.6)	0.7 (2.1)	0.35
FSFI			
Risk for sexual dysfunction# n (%)	29(93.5)	26(83.8)	0.48*
Desire	13.2 (7.9)	13.8 (9.1)	0.38
Sexual arousal	2.2 (1.0)	2.5 (1.2)	0.32
Lubrication	2.1 (1.3)	1.8 (1.6)	0.76
Orgasm	2.1 (1.5)	1.9 (1.6)	0.87
Satisfaction	2.2 (1.8)	2.1 (2.0)	0.43
Pain	2.6 (1.6)	2.9 (1.7)	0.63

Label: VHI – Vaginal Health Index: >15 normotrophic and <15 hypotrophic; VMI – Maturation Value: 0-49: severe atrophy, 50-64 moderate atrophy, 65-100 mild atrophy; FGSIS-7 - Female Genital Self-Image Scale-7; ICIQ-SF - International Consultation on Incontinence Questionnaire – Short Form; NVS – Numeric Visual Scale; FSFI - Female Sexual Function Index; #cutoff point 26risk for sexual dysfunction; *chi-square test was used in the variables analyses.

Conclusions

It is concluded that there are no differences in the severity of vaginal atrophy between patients submitted or not to hormone suppression therapy, as well as in the clinical symptoms presented, even with age difference. But this conclusion should be observed with caution due to the loss of data on the main outcome of the study – vaginal atrophy by MV.

References

1. Yaralizadeh M, Abedi P, Najar S, Namjoyan F, Saki A. Effect of Foeniculum vulgare (fennel) vaginal cream on vaginal atrophy in postmenopausal women: A double-blind randomized placebo-controlled trial. *Maturitas*. 2016;84:75–80.
2. Gomes TBS, Brasil CA, Barreto APP, Ferreira RS, Berghmans B, Lordelo P. Female genital image and body image. *Turk J Obstet Gynecol*. 2019;16:84-90.