

Evaluation of Sexual Function, Genital Image and Therapeutic Satisfaction of Women Undergoing Aesthetic Treatment with Shockwave Therapy for Localized Fat in Mons Pubis: a pilot study



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HYPOTHESIS

Anatomically, the pubic region is covered by a layer of adipose tissue, playing a protective role against physical trauma to the pubic bone. Some women have higher accumulation of fat in this area, causing aesthetic complaints. Woman's discomfort with the appearance of her genitalia can directly impact the genital image and quality of life.[1] Treatments for fat located in the mons pubis are not well described in the literature and the scarcity of research that addresses this issue favors the use of technique commonly used in other parts of the body.

Shockwave Therapy (SWT) is a therapeutic possibility because it presents good results for localized body fat. SWT are high-energy acoustic waves that produce high-pressure impulses in a short period and, when they reach the adipose tissue, favor adipocyte apoptosis with a consequent reduction in the thickness of adipose tissue. It is a non-invasive, effective and well-tolerated procedure in the body region, but the clinical response that SWT can provide in the pubic region is unknown.[2,3] In an innovative way, to our knowledge, this is the first study focused on this theme. This research aims to describe the perception regarding the genital image, sexual function and therapeutic satisfaction of women who have localized fat accumulation in the mons pubis and were treated with SWT.

MATERIALS AND METHODS

This is a pilot study carried out in women with aesthetic complaints of adipose tissue deposits in the mons pubis. The sample consisted of women aged between 18 and 65 years, without dermatoses and/or inflammation in the genitalia region and not pregnant. Patients using cosmetics in the genital region, cancer or a previous history of cancer were excluded. The survey was carried out from September 2021 to February 2023.

Initially, the participants answered a basic anamnesis, signed the Free and Informed Consent Form, and completed the self-administered questionnaires for genital image and sexual function: Female Genital Self-Image Scale (FGSIS-7) and the Sexual Quotient (SQ-F).

Subsequently, a local physical assessment was carried out with a trained researcher to verify the thickness of the adipose tissue layer using an adipometer and ultrasound images. In adipometry, the patient was naked and in orthostasis. The adipometer was positioned horizontally on the midline of the mons pubis and 4cm above the labial commissure. Three measurements were performed and the result was obtained from an average of the values. For image evaluation by means of ultrasound (Mindray, Shenzhen, China), the patient was positioned in dorsal decubitus and at the same marking used for adipometry, the ultrasound convex probe was positioned horizontally, without exerting pressure, using only the weight of the equipment. The parameter used to consider the accumulation of fat in the mons pubis was having a fat layer thickness ≥ 15 mm.

The FGSIS-7 is an instrument that assesses satisfaction and beliefs regarding one's own genital image. The scores can vary from 7 to 28 points, there is no cut-off point and higher values indicate a more satisfactory self-image. The SQ-F is an instrument composed of 10 questions. It is categorized according to the score: 82–100 as good to excellent, 62-80 as regular to good, 42-60 as unfavorable and 0-20 as null to bad.

For the treatment, 10 SWT sessions were performed twice a week. The device used was an electromagnetic shockwave (ThorK) from IBRAMED (Amparo, São Paulo, Brazil), with the electrode connected to a 24mm metallic tip covered by a silicone case, using a gel conductor on the mons pubis, 10 cm from the upper labial commissure divided into two quadrants, in the craniocaudal direction. The parameters for using the genital region were based on the studies on body regions adapted for the genital region according to the area,[2,3] leading to the protocol as follows: energy 180mJ, frequency 18Hz, shots 3500.

Seven days after the last SWT intervention session, women returned for a reassessment, maintaining the initial assessment protocol. In addition, they answered the following questions: "Today, after treatment, how is the appearance of your genitalia?": much worse, worse, unchanged, better, much better; "What is your level of satisfaction with the treatment?": very dissatisfied, dissatisfied, unchanged, satisfied, very satisfied.

RESULTS

In the present study, 12 women started the research with SWT in the mons pubis region, and only 6 women completed the treatment. The women had a mean age of 55.67 ± 9.68 years.

The adipometry performed in the pre-treatment showed an average thickness of the subcutaneous tissue of 31.80 ± 5.95 mm, with loss of data of two patients. In post-treatment, the average was 30.62 ± 6.39 mm. The initial ultrasound values were 31.80 ± 5.95 mm and the final ultrasound values were 31.80 ± 5.95 , accepting the loss of pre-treatment information for two women (Table 1).

The values referring to the FGSIS-7 reached an average of 18 ± 5.55 pre-treatment and 20.5 ± 4.03 post-treatment. Regarding the SQ-F, the sample presented an average of 70.33 ± 27.46 pre-treatment and post-treatment this average was 66.67 ± 31.38 (Table 1).

Patient	Adipometry before	Adipometry after	USG before	USG after	FGSIS-7 before	FGSIS-7 after	SQ-F before	SQ-F after
1	35.60 mm	41.70 mm	22.10 mm	32.76 mm	20	20	80	86
2	23.33 mm	26.00 mm	24.45 mm	37.19 mm	18	17	78	76
3	***	30.70 mm	***	47.33 mm	13	17	62	72
4	36.30 mm	30.33 mm	36.62 mm	34.58 mm	15	20	82	56
5	32.00 mm	23.00 mm	28.18 mm	12.86 mm	28	28	100	100
6	***	32.00 mm	***	26.40 mm	14	21	20	10
M\pmDP =	31.80\pm5.95	30.62\pm6.39	31.80\pm 5.95	31.84\pm11.54	18\pm5.55	20.50\pm4.03	70.33 \pm27.46	66.67 \pm31.38

USG= ultrasound. FGSIS-7=Female Genital Self-Image Scale. SQ-F=Sexual Quotient. M=mean. DP=standard deviation. *** = Data loss.

Table 1 – Description of the clinical findings before and after the SWT procedure.

When analyzing the 06 women who received SWT and completed the treatment, it was possible to verify that 04 women (66.7%) said that the appearance of their genitalia was unchanged and 02 reported improvement (33.3%). Regarding satisfaction with the treatment, it was possible to identify that 03 women said they were satisfied with the treatment (50%), 01 reported being dissatisfied (33.3%), and 01 unchanged (16.6%).

INTERPRETATION OF RESULTS

The exposure of women to aesthetic treatment through SWT for fat located in the mons pubis suggests that there was no improvement in the perception of genital image and sexual function, since there was a decrease in the SQ-F scores and the FGSIS values remained practically unchanged. Corroborating these data found, a good part of the sample reported that the change in the appearance of the genitalia was unchanged.

When measuring the thickness of the adipose tissue through adipometry and ultrasound images, SWT did not interfere in the density of the subcutaneous tissue. Despite that, half of the participants declared themselves satisfied with the treatment. However, the literature addresses that SWT promotes a reduction in localized adiposity in the abdominal region, as observed in adipometry and ultrasound analyses.[2,3]

Half of the women gave up the therapy and, therefore, it is believed that the low number of participants who completed the treatment interferes in the results. A better understanding of the non-adherence to treatment is necessary, but it is possible to infer that the proposal of 10 sessions twice a week may be a factor that favors this result, since the complaint of the participants referred to the length of time treatment.

CONCLUSIONS

The use of SWT for localized fat in mons pubis did not present improvement in genital image and sexual function and half of the patients were satisfied with the treatment. There is a need for comparative studies with therapies for fat located in the mons pubis, as well as conducting research with SWT with a control group.

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