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Regular penis-root masturbation: a promising behavioral treatment method for lifelong

premature ejaculation

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ABSTRACT

Purpose

Premature ejaculation (PE) is a common male sexual dysfunction. Various treatments have been proposed for PE, including pharmacotherapy, behavioral therapy (BT), and combined BT and pharmacotherapy. Although pharmacotherapy is accepted as the first-line treatment for lifelong PE, high rates of discontinuation occur due to variable efficacy and side effects. In this study, the efficacy of penis-root masturbation (PRM), a newly described BT technique, was investigated in patients in whom medical treatment for PE was not successful.

Material and Methods

The study included 35 patients aged 25-43 years, who were diagnosed with lifelong PE. Patients and their partners were informed about the PRM technique and asked to practice PRM three times a week for three months, with or without sexual intercourse. The patients' Premature Ejaculation Diagnostic Tool (PEDT) scores and intravaginal ejaculatory latency time (IELT) were recorded and compared before PRM training (T0) and at the third (T3) month after the start of PRM training.

Results

The mean±SD PEDT scores were 16.26 ± 1.94 at T0, 10.63 ± 1.14 at T3. When compared to T0, the PEDT values at T3 were significantly lower (p=0.021). In terms of IELT, the mean T3 values (192.43 ± 56.71) were significantly longer (p=0.035) than at T0 (50.43 ± 13.84 seconds).

Conclusion

PRM BT shows promise for lifelong PE patients who do not benefit from or discontinue to pharmacotherapy. Larger prospective trials are required to confirm these findings.

Key words: Life-long premature ejaculation, penis root masturbation, behavioral therapy

INTRODUCTION

Premature ejaculation (PE) is a common male sexual dysfunction. Although it is reported to affect up to 20-30% of men, regardless of age and ethnicity (1,2) the prevalence of this dysfunction remains unclear so that in recent years new criteria and classifications have aimed to obtain a better understanding the true prevalance of this disease (3). This condition is characterized by a short ejaculation time and inability to control ejaculation, resulting in deterioration of the relationship between spouses and avoidance of sexual intercourse (4). According to the International Society of Sexual Medicine's (ISSM) Guidelines' PE defines a "male sexual dysfunction by: ejaculation that always or nearly always occurs prior to or within 1 minute of vaginal penetration from the time of the first sexual experience (lifelong premature ejaculation-LPE, also called as primary premature ejaculation - PPE), or a clinically significant decrease in latency time, often to about 3 minutes lower (acquired premature ejaculation -APE)" (5). Various treatment options, including pharmacotherapy, behavioral therapy (BT), and combined BT and drug therapy have been recommended in the management of PE (6). Although pharmacotherapy is considered the first-line treatment for lifelong PE, high rates of discontinuation occur due to variable efficacy and side effects of the drugs used, hindering the utility of this treatment in treating PE (7). BT is a viable therapeutic option for patients who are unwilling to try pharmacotherapy or have tried it but discontinued.

Commonly used BT methods are the "stop-start" and the "squeeze" method. Recently, regular penis-root masturbation (PRM) was introduced by Ma et al. in 2019 as a new BT method for PE with promising findings (4).

In this study, the efficacy of PRM in patients who had received unsuccessful pharmacotherapy for PE was investigated.

MATERIALS AND METHODS

Statement of Ethics:

The study was approved by the Institutional Review Board of Derince Training and Research Hospital. The research related to humans complied with all the relevant national regulations, institutional policies and in accordance the tenets of the Declaration of Helsinki, and was approved by the authors' institutional review board or equivalent committee.

Patient selection

The medical records of male patients who presented to the urology outpatient clinic with the complaint of PE between September 2019 and March 2020 were investigated retrospectively. The patients included in the sample were heterosexual, either married or in a relationship for at least one year, had sexual intercourse at least once a week and who could read and write. All had attempted pharmacotherapy for PE for at least six months with no significant improvement in complaints or discontinued medical therapy due to drug side effects prior to the study. All patients had a Premature Ejaculation Diagnostic Tool (PEDT) score of greater than 9. The premature ejaculation diagnostic tool (PEDT), which is a brief self-administered questionnaire, was developed and validated by Symonds et al. to standardize the diagnosis of PE in clinical trials (8). The PEDT was validated to a five-item Turkish version by Şerefoğlu et al (9).

Patients with acquired, natural variable, and subjective premature ejaculation, International Index of Erectile Function (IIEF-5) scores of less than 21, anatomical abnormalities, genital infection and neurological disorders, low libido, psychiatric diseases and conditions that could cause PE, such as major depression, and alcohol, drug or substance addiction, and those who did not attend their follow-up examinations were excluded from the study. The participants' detailed medical and sexual histories, and full physical examination findings were recorded.

For all subjects, the PEDT scores were calculated at baseline (T0) prior to any PRM training, and the intravaginal ejaculatory delay times (IELTs) measured by their spouses, using an accurate chronometer (such as that found in most mobile phones) were recorded. The patients and their spouses were given information about the PRM technique and asked to practice this technique three times a week for 15 minutes for three months, with or without sexual intercourse. The PEDT scores and IELT values were also recorded at three months after the start of PRM training (T3).

PRM technique

For the application of this technique, after achieving penile erection with various sexual stimulations without touching the glans, frenulum, and distal penile shaft, the patient was instructed to lie in the prone position and massage the proximal penile shaft using the thumb pulps of one or both hands using forward and backward or circular moves, covering the dorsal part of the penis and the proximal third of the penis in a way that would induce sexual pleasure and maintain the erection. During this process, the patient's spouse was allowed to kiss and

touch or use visual sexual stimuli. The patient was asked to interrupt the procedure as soon as the feeling of ejaculation occurred and continue with the described technique again after the feeling of ejaculation disappeared. After approximately 10-15 minutes of therapy, the patient was allowed to engage in coitus and ejaculate (4). The PEDT scores and IELTs were compared between T0 and T3.

Statistical analysis

Statistical evaluation was performed with the Statistical Package for the Social Sciences (SPSS), version 18 (SPSS Inc., Armonk, NY, USA)). Non-parametric statistical tests were used because the data were not normally distributed (Kolmogorov–Smirnov test). The results were analyzed by descriptive tests (mean, standard deviation, median), and time comparison between variables were made using paired Friedman Analyzed and Wilcoxon tests, as appropriate p< 0.05 was considered as statistically significant, two-sided tests were applied. Patients' scores in the PEDT and IELT were compared between baseline (T0) and the three month (T3) after completion of PRM training.

Post hoc power analysis (Post hoc: Compute achieved power - ANOVA; F test; repeated measures, between factors) was used to estimate the strength of the observed effect based on the sample size and PEDT scores parameter of our dataset. As a result of the analysis, the effect size f was found to be 0.5, error (α) was 0.05 and the power (1- β err prop) was 0.9016. Power analysis was performed using the gpower (3.9.1.6) program.

Results

Thirty-five male patients, aged 25-43 years, included in the study. The mean age was 33.9±4.7 years. The PEDT scores and IELT values of the participants were measured at baseline before PRM training (T0) and at the third (T3) month after the start of training. Figure 1 and 2 show the changes in the PEDT scores and IELT values according to the measurement times.

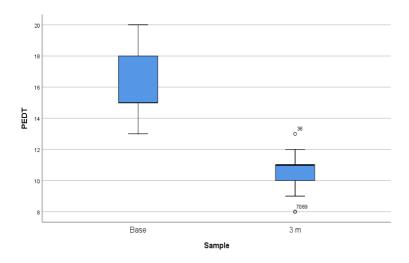


Fig. 1. Box plot of the PEDT scores evaluated before PRM training (baseline) and at the third months after training (PEDT, Premature Ejaculation Diagnostic Tool; PRM, penis-root masturbation; m, month after PRM training).

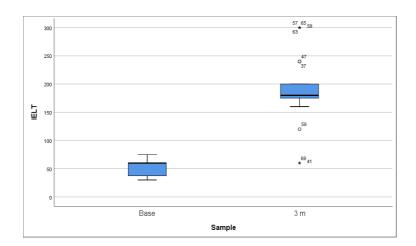


Fig. 2. Box plot of the IELT values evaluated before PRM training (baseline) and at the third months after training (IELT, intravaginal ejaculatory latency time; PRM, penis-root masturbation; m, months after PRM training)

While the patient's mean±SD (range) baseline PEDT score was 16.26 ± 1.94 (13-20) and at T3 this was 10.631 ± 1.14 (8-13). Comparing these results statistically, there was a significant decrease in PEDT scores between T0 and T3 (p=0.021) (Table 1).

The median (range) T0 and T3 IELTs times of the patients were 50.43 (30-75) and 192.43 (60-300) seconds, respectively. The changes in the IELT values according to the measurement times

shown in Table 2. Statistical analysis showed a significant increase in the IELT values at T3 compared to the baseline (p=0.035).

Table 1. Basic statistics for PEDT measurements

	Minimum	Maximum	Mean	SD	Median	р
PEDT-baseline	13	20	16.26	1.94	15	<0.05
PEDT-month 3	8	13	10.63	1.14	11	

PEDT: Premature Ejaculation Diagnostic Tool SD: Standard deviation p: Friedman Analyzed

Table 2. Basic statistics for IELT measurements

	Minimum	Maximum	Mean	SD	Median	p
IELT-baseline	30	75	50.43	13.84	60	<0.05
IELT-month 3	60	300	192.43	56.71	180	

IELT: Intravaginal ejaculatory latency time SD: Standard deviation p: Friedman Analyzed

DISCUSSION

Among the treatment options for PE are pharmacotherapy, BT and a combination of these. Pharmacotherapy usually involves the use of the group of drugs known as selective serotonin reuptake inhibitors (SSRIs). However, due to the variable efficacy rates and side effects of these drugs, patients may not regularly use them, and thus may not show a good response (7). In a study conducted by Jern et al., it was reported that 47% of patients receiving medical treatment during an average follow-up of 13.3 months did not continue taking the drug, and at the end of the 30-month period, almost all the patients had discontinued their treatment. They reported that the discontinuation rates of different SSRIs ranged from 28.8% to 70.6% (10). In another study, it was shown that of the patients receiving medical treatment for PE, 79.1% discontinued this treatment within the first six months and 90.1% at the end of two years (11).

BT methods in PE are based on the idea that sexual arousal and the ejaculation reflex can be modified, and a person can learn how to control ejaculation. This therapy aims to help the patient regain his self-confidence in sexual performance by teaching him ejaculation control and delaying techniques. Commonly used BT methods include the stop-start technique and the squeeze method. In the stop-start technique, first defined by Semans in 1956 (12), the male

patient (or his partner) continues to stimulate the penis until the urge to ejaculate arises, and then interrupts this stimulation until this urge passes. This technique is repeated several times until ejaculation. The squeeze method, which is a modification of the stop-start technique, was defined by Masters and Johnson (13) and also involves the stimulation of the penis until the urge to ejaculate. Subsequently, the glans penis is squeezed, and several seconds are waited until the urge to ejaculate passes. This process is repeated several times until ejaculation. Several small, randomized prospective studies have shown that pelvic floor muscle exercises can also be effective in patients with PE (14,15). In recent years, researchers have also described new BT methods that combine classical behavioral techniques, such as Seman's stop-start technique with the use of masturbation devices (16,17).

Although it has been claimed that BT can increase IELT up to eight times, there are no concrete data to support this claim (12,13,18). Short-term improvement has been observed using behavioral methodologies, but there are only limited data on the long-term efficacy of these procedures (19). Two recently published meta-analyses concluded that there was inconsistent evidence for the efficacy of psychological intervention in the treatment of PE, confirming the need for future research (20,21). Nevertheless, it is generally agreed that combining behavioral techniques with pharmacotherapy may be superior to monotherapy and provide better long-term outcomes (19). The advantages of BT include the absence of side effects, potential to increase the efficacy of medical treatment by addressing the aspects of PE that cannot be addressed by medication alone and helping to establish healthy relationships by increasing male self-confidence, reducing performance anxiety, and ensuring that the couple is open to each other about sexuality (22).

The main purpose of BT in PE is to train patients to use techniques that will delay ejaculation and help them develop sexual skills and increase self-confidence over time (10,22,23). The starting point of this treatment is clinical observation of the sexual behavior of patients followed up for delayed ejaculation (DE).

Xia et al. reported that penile sensitivity was in the penile shaft rather than the glans in patients with primary DE (24). The authors attributed this to the unusual masturbation habits of patients. Chen et al. observed that patients with DE were able to develop autosexual patterns that produced different types of orgasms through unusual masturbation than they experienced with a partner (25). Furthermore, it has been shown that DE may result from 'atypical' (idiosyncratic) masturbation, a technique that cannot be easily replicated with the partner's hand, mouth, or vagina (26). PE and DE are at the opposite ends of ejaculatory dysfunction,

and DE can be caused by different masturbation techniques, which suggests that such unconventional masturbation techniques have the potential to treat PE. The most specific example of idiosyncratic masturbation is the one performed in the prone position (27). Various observations have shown that masturbation in the prone position can prolong IELT (28). However, it has been suggested that frequent stimulation of the dorsal nerve of the root of the penis, which is necessary for normal erection and ejaculation, somewhat reduces penile sensitivity and central excitability, which may help improve the ejaculation threshold and prolong IELT, thereby effectively treating PE (29,30).

Based on the above-mentioned observations, Ma et al. developed the PRM method [4]. The authors evaluated the efficacy of PRM, defined as an atypical masturbation method, using IELT, PEDT, and dorsal nerve somatosensory evoked potential (DNSEP) measurements. Thus, these authors tested an atypical masturbation technique for the treatment of PE rather than the known typical masturbation. When the authors re-evaluated DNSEP in five of the eight patients, they found a prolongation of ejaculation times after PRM training. Similar to previous studies, the authors explained this finding by stating that in PRM, the sensory focus might shift to the penile root due to the repetitive stimulation of the penile dorsal nerve, which may reduce the feeling of irritation in the glans during vaginal intercourse or reduce the sensitivity of the glans, or patients can adapt to this unusual stimulation style, which is not likely to be easily imitated by their partner's vagina. The second study demonstrating the efficacy of the PRM technique was published by Jiang et al., who compared this technique with Kegel exercises, another BT method used in the treatment of PE (28). Jiang et al. concluded that PRM was more effective than Kegel exercises in the treatment of PE. Similar to these two studies, we observed significant improvement in the PEDT scores of the patients and an increase in their IELTs after PRM training.

However, the absence of a comparison group that received and benefitted from drug therapy or a combination of PRM technique with the patients who were under pharmacotherapy for PE could be considered as the limitations of our study. We aim to perform such a comparison in future studies.

CONCLUSION

In this lifelong PE patients who had no significant improvement in complaints or discontinued medical therapy due to drug side effects, the effects of PRM training were striking, when measured by PEDT and IELTs. These findings are in keeping with the only two other studies

of PRM in PE to be published to date. We believe the active participation of spouses in the treatment period and the recovery of male self-confidence in PRM were effective in the treatment of PE. The most important shortcoming of studies on BT for PE is that similar studies usually do not provide the same results. Our findings are encouraging, as they are in keeping with the limited evidence published to date concerning PRM as a new BT technique in primary PE. For these reasons we believe that PRM as a BT for lifelong PE warrants further research.

Informed Consent:

Informed consent was obtained from all individual participants included in this study.

Conflict of Interest Statement:

The authors have no conflict of interest to declare.

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None.

Author Contributions:

Ömür Memik project development, supervised data acquisition, analysis and manuscript writing. Bekir Voyvoda contribute to protocol development, data collection and data analysis. Murat Üstüner, Onur Karslı and Ahmet Ömer Halat has made contributions in analyses and interpretation of data. Levent Özcan participated in drafting the work or revising it critically for important intellectual content.

Data Availability Statement

All data generated or analyzed during the study are included in this article. Further enquires can be directed to the corresponding author.

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