

Evaluation of the Effectiveness and its Correlating Factors Regarding the 12-week treatment with Transperineal Pelvic Floor Electrical Stimulation System in Female Stress Urinary Incontinence.

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BACKGROUND

- Gold standard treatment of SUI = mid urethral sling surgery (TOT, TVT ...)
- Non-surgical/ conservative treatment options: behavior modification, medication, physical therapies
- **Electrical stimulation** has been proved to be an effective treatment option in managing SUI in many studies.
- Electrical stimulation → facilitate pelvic floor muscle contraction → pelvic muscle hypertrophy → strengthening of the muscle contraction and increase urethral pressure.

OBJECTIVES

-The present study aims to evaluate the effectiveness of the **12-week treatment** with the **Transperineal Pelvic Floor Electrical Stimulation (TPFES)** system for females with **SUI** and its **correlating factors**.

MATERIALS & METHODS

- A total of **22 females** who complained of urinary incontinence and were diagnosed as **SUI** according to the urodynamic study.
- All the patients received **TPFES** and were educated to use it for **12 weeks**.
- The patients were asked to **ICIQ-UI** and **OABSS** before and after applying TPFES for 12 weeks.
- **Age, BMI, Qmax,** and **PVR** of each patient were also obtained.

RESULTS

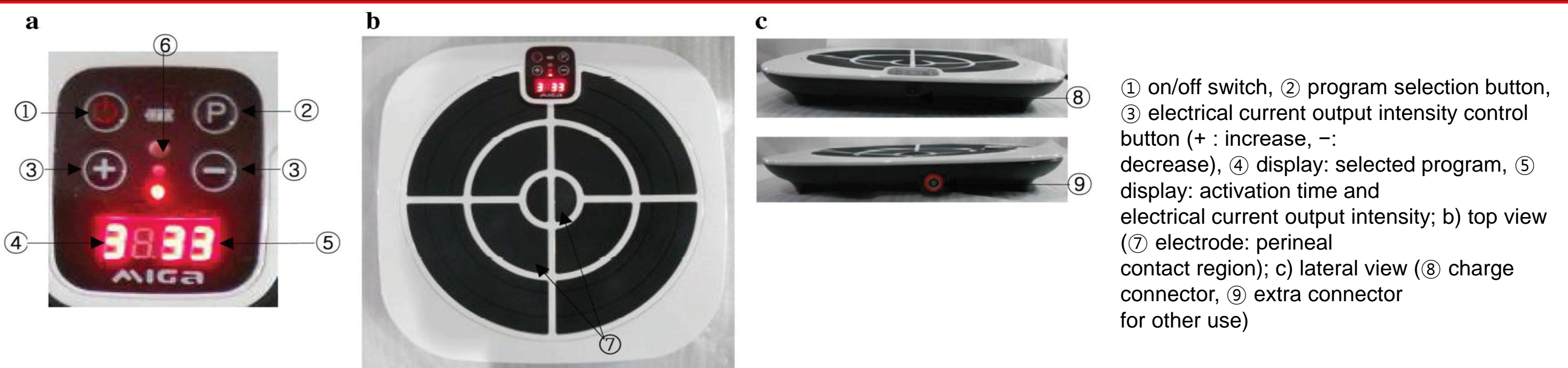


Figure. Transperineal Pelvic Floor Electrical Stimulation (TPFES) system

Table 1. Comparison of data between before and after the use of transperineal pelvic floor electrical stimulation system.

	Before TPFES	12 weeks after TPFES	p-value
Mean Qmax (mL/s)	26.61 ± 10.48	28.25 ± 9.07	0.515
Mean PVR (mL)	7.88 ± 22.27	18.00 ± 12.48	0.237
Mean ICIQ-UI total score	13.44 ± 2.96	6.89 ± 3.02	0.007
Mean OABSS total score	6.00 ± 2.83	3.67 ± 2.65	0.012

Table 2. Contributing factors regarding ICIQ-UI improvement after the 12-week use of transperineal pelvic floor electrical stimulation system.

Baseline variables	Mean	B	p value
Age (years)	61.14 ± 13.57	0.084	0.013
BMI (kg/m ²)	25.07 ± 4.20	0.092	0.730
OABSS total score	6.00 ± 2.83	-0.017	0.936
Qmax (mL/S)	26.61 ± 10.48	-0.165	0.004
PVR (mL)	7.88 ± 22.27	0.012	0.736

- The 12-week treatment with the TPFES system can improve SUI as well as the storage symptoms.
- Also, a younger female with greater Qmax is more likely to respond to the TPFES treatment.

CONCLUSION

The 12-week treatment with the TPFES system has the potential to become a supplementary option in managing females with SUI.