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Guest Editorial

Pelvic Floor Muscle Training for Stress Urinary Incontinence

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Stress urinary incontinence

Urinary incontinence is defined by the International Continence Society (ICS) and International Urogynecological Association (IUGA) as any involuntary loss of urine, being subdivided into three types: Stress Urinary Incontinence, Urge Urinary Incontinence and Mixed Urinary Incontinence. Stress urinary incontinence is defined as involuntary loss of urine during physical exertion or sudden increase in intra-abdominal pressure, such as sneezing and coughing [1].

This condition strongly influences the quality of life of women, at a physical, social and psychological level.

Risk factors we should consider are: Obesity, stressful physical activity, parity, diabetes, physical inactivity, constipation, age, family history, chronic respiratory disease and cough, gynecological surgery (hysterectomy) [2].

Prevention behavioral measures and education:

- Regular exercise
- Healthy, fiber-rich diet
- Regulate fluid intake (increasing if it's too low, decreasing if it's too high).
- Strengthen the pelvic floor muscles throughout life, regardless of age [2].

After the evaluation and diagnosis, the first line to be followed is the conservative treatment, which consists of behavioral guidelines and the rehabilitation of the pelvic floor muscles [3] and the indication for treatment with physical therapy is widely accepted.

Pelvic floor

The pelvic floor comprises a muscle group that is divided into superficial and deep. In the superficial layer we have the bulbospongiosus, ischiocavernosus, external anal sphincter and superficial transverse perineum. In the deep layer we have the deep transverse perineum, external urethral sphincter, ischiococcygeal and levator ani (puborectal, pubococcygeal and iliecoccygeal) [2].

The pelvic floor's main function is to support the pelvic organs. Weakness and any dysfunction of these muscles can be a factor for stress urinary incontinence, fecal and sexual changes and contribute to genital prolapse [4].

To assess the functionality of the pelvic floor muscles, we performed digital palpation and requested contraction, using the Oxford scale to grade the contraction pressure and the PERFECT scale as a basis.

OXFORD scale

- Grade 0: No muscle contraction observed.
- Grade 1: A sketch of contraction is felt under the examiner's finger.
- Grade 2: A voltage rise is detected, with no rise observed.
- Grade 3: Muscle tension is reinforced and characterized by lifting the muscle belly and also lifting the posterior vaginal wall.
- Grade 4: Increased tension and good contraction are present, able to lift the posterior vaginal wall against resistance.
- Grade 5: Strong resistance can be applied for rear wall elevation; the examiner's finger is compressed and pulled into the vagina.

PERFECT scale

- P muscle contraction or pressure
- And time in which the patient can maintain the contraction
- R repetitions: repetition capacity with the same contraction time
- F number of fast contractions.

During the evaluation, other aspects should be observed, such as: non-functional PFM; absence of muscle contraction; muscle incoordination and simultaneous contraction of other muscles. Initially, validated questionnaires such as the ICIQSF or voiding diary can be applied at the beginning of the treatment to help understand urinary symptoms and verify the therapeutic success of urinary symptoms.

In obstetrics, follow-up physical therapy is currently recommended prenatally and postpartum as a preventive approach to avoid urinary incontinence and pelvic floor disorders. According to the Cochrane review, women who performed pelvic floor exercises 3 months postpartum have 20% less incontinence [5].

In pelvic floor reconstructive surgeries such as prolapse and incontinence, the practice of exercises and follow-up with physiotherapy should be encouraged after the first 6 weeks post-procedure to keep muscles strengthened and avoid recurrence of symptoms.

Pelvic muscle training

Pelvic floor muscle training consists of PFM contraction exercises with the aim of promoting greater urethral support, favoring sphincter action to prevent urine loss.

The training protocol must be individualized for each patient and according to the initial assessment, and it is important to adapt the program according to the individual's ability to contract. For women who are unable to perform the correct contraction, pelvic floor muscle training with biofeedback, electrical stimulation or vaginal cones may be proposed [3].

In addition, the TMAP should be performed in different postures as a different stimulus for exercise, enhancing contraction, and also associating it with daily activities or in situations where urinary loss occurs [1].

Bibliography

1. Abrams P., *et al*. "The standardisation of terminology of lower urinary tract function: report from the standardization sub-committee of the international continence society". *Neurourology and Urodynamics* 21.2 (2002): 167-178.

2. Pelvic floor dysfunction NICE guideline (2021).

3. Oliveira M., *et al*. "Pelvic floor muscle training protocol for stress urinary incontinence in women: A systematic review". *Revista da Associacao Medica Brasileira* 63.7 (2017): 642-650.

4. G Willy Davila., *et al*. "Pelvic Floor Dysfunction: A Multidisciplinary Approach". Springer (2008): 304.

5. Sapsford RR., *et al*. "Co-activation of the abdominal and pelvic floor muscles during voluntary exercises". *Neurourology and Urodynamics* 20.1 (2001): 31-42.

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