

Management of Prostatodynia in Younger Patients with Sub-Ablative Erbium:YAG Intraurethral Laser

Adrián Gaspar, Joaquín Silva, Gustavo Silva, Raúl Anchelerguez, Alejandro Prats Jorge Sagaz, Eduardo Rovere, Mauricio Alastra, Fernando Mercado, Juan Pino, Alejandro Jauregui, Marcos Farrugia, Fabricio Villaroel, Jonathan Guareschi, Maximiliano Vega, Emanuel Biasiori, Emanuel Moyano, Antonio La Rosa
Uroclinica, Mendoza Argentina
Espacio Gaspar Clinic, Mendoza, Argentina.

This prospective study aimed to compare the clinical outcomes between the use of the Erbium:YAG laser, administered in long sub-ablative pulses applied at the level of the male prostatic urethra, to the use of the standard treatment of oral tadalafil for the treatment of prostatodynia symptoms in young patients.

This is a prospective study, conducted between April and September of 2017, composed of two groups of patients: the Laser Group, composed of 16 patients between 31 and 47 years of age; and, the Control Group, represented by 20 patients between 30 and 45 year old. Both groups of patients were affected by prostatodynia, with characteristic symptoms: perineal pain, dysuria and urinary frequency.

All the evaluated symptoms showed a statistically-significant improvement in the follow-up at one month and three months in both groups. The improvement in chronic perineal pain measured by VAS showed a fall from severe to minimal or absent, and from moderate to minimal to absent. The urinary symptoms of dysuria and frequency, evaluated by the "Quality of Life Due to Urinary Symptoms Questionnaire" and by I-PSS, also showed a statistically-significant improvement in both groups at the month of follow-up, which was even more evident at three months. Of the 16 patients treated in the laser group, 13 remained asymptomatic and with a normal Q-max at six months of follow-up, while of the 20 patients treated in the control group, only 10% (2 patients) were asymptomatic at six months of follow-up.

Traditionally, the symptoms of prostatodynia were attempted to be resolved with measures aimed at

improving the oxygenation and vascularization of the prostatic urethra, such as the combination of kinesiotherapy and the use of tadalafil at 5 mg/day, a drug inhibitor of the enzyme phosphodiesterase type 5 (PDE-5), responsible for deactivating the nitric oxide vasodilator. By improving the vascularization of the prostatic portion of the urethra, the prostatic parenchyma is indirectly improved, thus explaining the improvement of voiding symptoms and pelviperineal pain. The technique proposed with the sub-ablative intraurethral Erbium:YAG laser allows us to improve the local circulatory conditions by: initially, promoting a strong effect of vasodilation in the prostatic portion of the urethra that markedly increases oxygenation and nutrition at the loco-regional level; and, finally, producing an anti-inflammatory and angiogenic effect.

Few of the ailments of the genitourinary tract confuse the patient and the doctor more than the prostatic inflammatory processes. Prostatodynia remains a complex and difficult problem to solve. The systematic approach to these conditions constitutes progress for their understanding and treatment. A good doctor-patient relationship is necessary, since it takes time, patience and understanding on both sides to arrive at positive results. The multiple treatments proposed do nothing but show that a clear knowledge of the problem has not yet been reached. Through this pilot study and knowledge of the benefits of laser-tissue interaction, we once again show that laser light in sub-ablative pulses of Erbium:YAG, may represent an option in the therapeutic arsenal that we have today. It is necessary to perform prospective, randomized studies with a larger number of patients and longer follow-up to confirm these initial good results.

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