Total Prolapse Management by 2940 nm Er:YAG Laser

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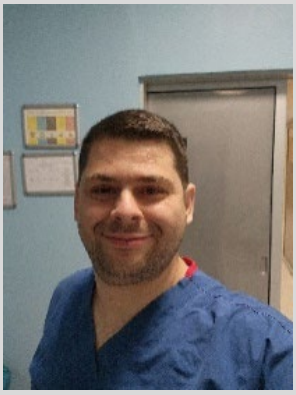
Introduction:

Managing advanced prolapse in patients with multiple comorbidities can be challenging. Er:YAG laser treatment presents a non-surgical approach aimed at improving support and reducing symptoms.

Laser	Fotona XS Dynamis		
	Step 1	**Step 2**	**Step 3**
Wavelength	Er:YAG 2940 nm	2940 nm	2940 nm
Handpiece	PS03-GA	R11-GC	PS03X
Spot size	7 mm	7 mm	7 mm
Fluence	7 J/cm^2	3.5 J/cm^2	10 J/cm^2
Mode	SMOOTH	SMOOTH	SMOOTH
Frequency	1.6 Hz	1.6 Hz	3.3 Hz
Passes	9	9	3 passes
Anesthesia	No		
Sessions	4 sessions every 3 weeks		



Ali Haydar Kantarcı graduated from Gazi University Faculty of Medicine in Ankara in 2007, and then finished his obstetrics and gynecology specialization at Selçuk University in 2012. In 2014 he received an IVF certificate from HRS Hospital in Ankara. Since 2018 he has been working in his private clinic as a gynecologist. He has over 600 cases of gynecological laser experience.

CLINICAL CASE:

A 57-year-old woman with POP-Q stage 4 total pelvic organ prolapse, with a predominant cystocele component, came to my clinic. She had many comorbid factors: type-2 DM, hypertension, Hashimoto's disease, and cardiac failure. Her BMI was 40. She was using drugs such as insulin, levetron, aspirin, and β-blockers. Because of all these reasons, she did not want to have a surgical operation.

We decided to manage her problem with non-invasive Er:YAG laser treatment to improve her quality of life.

Before each session the vaginal canal was washed and the disinfectant solution carefully dried off and removed from the mucosa. No anesthesia was needed. Estrogen cream was given to the patient to use twice a day between sessions.

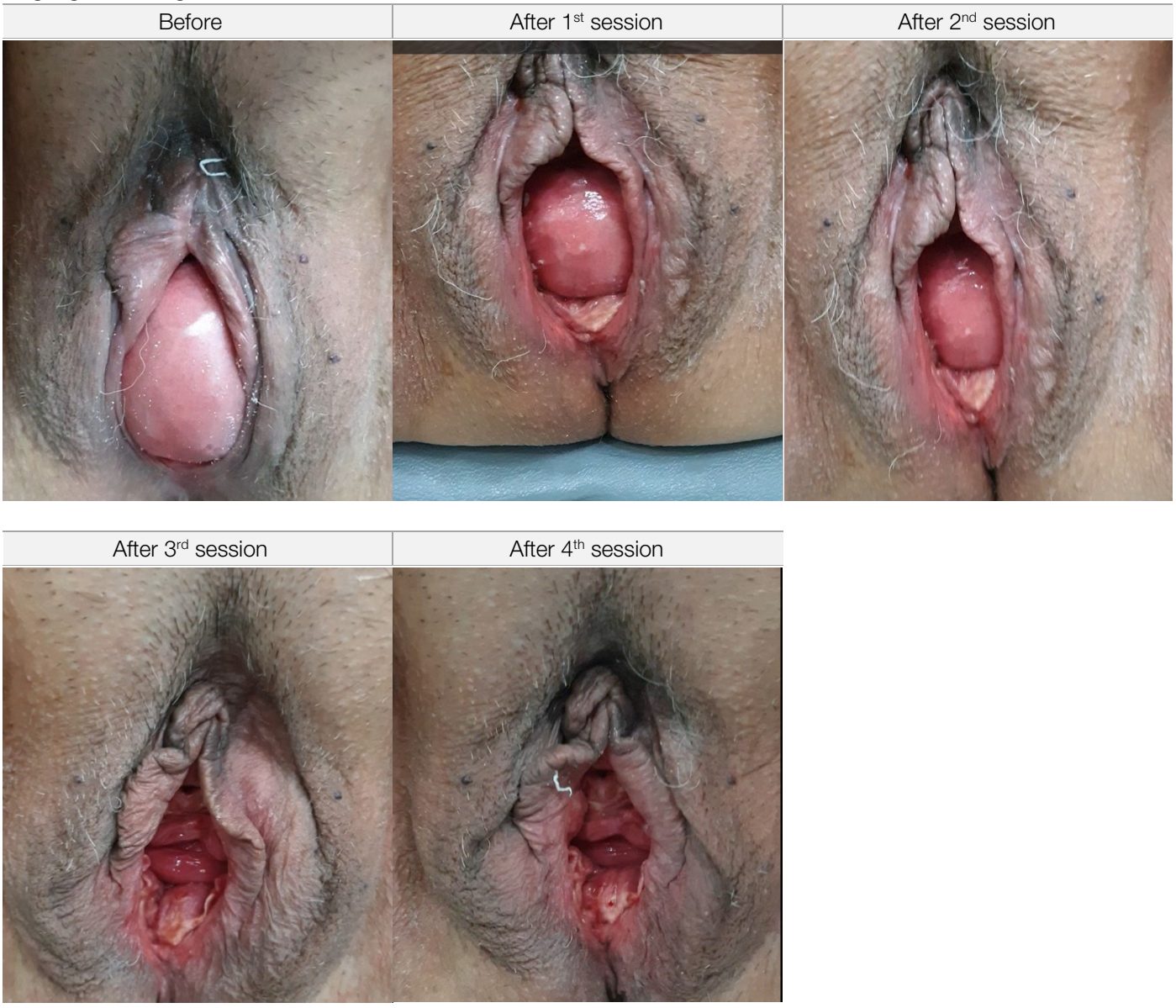
Step 1: By using the PS03-GA with a maximum of 7 J/cm^2 in SMOOTH mode with a laser speculum, 90-degree laser irradiation of the whole vaginal canal was started in the 12 o'clock position. Then it continued between the 11–12, 12–1, 3–9, 5–6, and 6–8 o'clock positions for a total of 9 times, with step-by-step withdrawal of the laser handpiece outwards from the laser speculum.

Step 2: By using the R11-GC with a maximum of 3.5 J/cm^2 in SMOOTH mode with the laser speculum, 360-degree laser irradiation of the whole vaginal canal was started in the 12 o'clock position and continued along the vaginal canal, with step-by-step withdrawal of the laser handpiece outwards from the laser speculum for a total of 9 times.

Step 3: After completion of the first two steps, the laser handpiece and speculum were removed, and the third step of the procedure was done by using a straight-shooting laser handpiece (PS03) with 10 J/cm^2 energy. Patterned laser beam energy was delivered to the whole area of the vestibule/introitus/anterior vaginal wall, near the sides of the urethra.

Four sessions every 3 weeks were performed, with no complications.

The result after 4 sessions was very encouraging. The patient became POP-Q stage 2 and her prolapse was not increasing with coughing or sneezing.



All photographs were taken when the patient performed the Valsalva maneuver, pushing the prolapse as much as she could.