



Lichen Sclerosus Treatment with Erbium:YAG Laser - Our Experience

Natasha Teovska Mitrevska, MD

Introduction:

Lichen sclerosus (LS) is an inflammatory skin disease that usually involves the anogenital area, where it causes itching and soreness, sexual dysfunction, urinary dysfunction in men, and is also associated with genital cancer. The course of LS can be chronic.

Treatment remains unsatisfactory, particularly in women, as disabling scar formation is common despite treatment. The Er:YAG laser with its specific nonablative modality, which causes shrinkage of collagen fibers and consequently triggers neocollagenesis, may be another therapeutic option for lichen sclerosus, where an alteration in the distribution of collagen is very important.

Laser	SP Dynamis	
	Step 1	Step 2
Wavelength	2940 nm	2940 nm
Handpiece	R11	PS03x
Spot size/ Fiber tip	5 mm	7 mm
Fluence	3 J/cm ²	9 J/cm ²
Mode/ Pulse	MSP	SMOOTH
Frequency	5 Hz	1.6 Hz
Passes/Repeats	3 times	2 times
Sessions	Single session repeating after 1 month	



Natasha Teovska Mitrevska is a specialist in dermatology at the Department of Dermatology of ReMedika General Hospital in Macedonia. She has a Master's degree in Public Health and is currently a doctoral (PhD) student enrolled in the third cycle of doctoral studies at the "Ss. Cyril and Methodius" University in Skopje. She is also her country representative for IUSTI-EU and is frequently invited as speaker for the events of the Laser and Health Academy in the field of dermatology and aesthetics. She is additionally the CBAM authorized instructor of Aesthetic Medicine courses in Macedonia and the supervisor of the CBAM designated centers throughout the Eastern European region.

CLINICAL CASE:

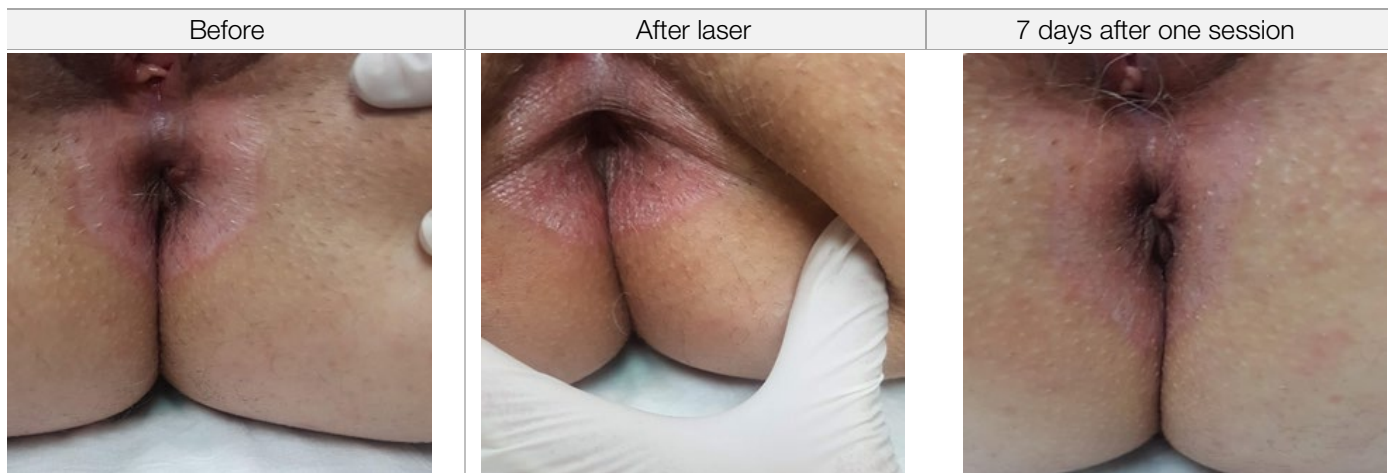
In this study, 12 women between the ages of 35 and 65 years were included, diagnosed for the first time with vulvar LS, and confirmed with biopsy, without any prior treatment. The study was carried out over the period from March 2020 until December 2021.

In the first session, the Er:YAG laser (SP Dynamis, Fotona, Slovenia) was applied with a PS03x handpiece with fluence of 7 J/cm², 2 Hz, and spot of 7 mm in continuous mode application. Then an Er:YAG treatment modality (Fotona SMOOTH® mode) that causes gentle coagulative heating of the skin was used. The modality delivers laser energy onto the skin in a fast sequence of low-fluence laser pulses inside an overall super-long pulse of 200 ms to 350 ms. Every so often when the area whitened, it was cleaned with gauze soaked in physiologic fluid.

The objective was to achieve uniform whitening and an increase in local heat until erythema of the area or whitening was observed after 10 minutes of application. Three sessions were applied in monthly intervals.

Of 12 patients, 3 stopped the procedure after 1 treatment, and after follow up, no symptoms or signs of LS were present, and they confirmed their satisfaction with the one treatment. After the treatment, we advised the application of Centella asiatica (Cicabio Bioderma), and Neomycin was recommended for 7 days, twice a day, together with an intimate moisturizing cream (Cicaplast, La Roche-Posay). After the procedure, the patients reported only a small sensation that lasted about 2 days and erythema after the laser procedure.

Satisfaction was measured by asking a simple question regarding the improvement of the symptoms. After the procedure, none of the patients used corticosteroid as a topical treatment. The treatment with Erbium:YAG laser was well tolerated by the patients and significantly reduced the impact of lichen sclerosus on their lives.



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