



Combination of Er: and Nd:YAG in Treatment of Vulvodynia and Dermatoses of the Vulva

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Introduction:

A series of clinical cases have shown visually similar symptoms in the vulva area, i.e. mucosal hyperemia, burning, dyspareunia, dryness, sometimes itching: Case 1 (Candida albicans), Case 2 (intimate cosmetics and synthetic pads), Case 3 (autoimmune disease – lichen sclerosus), Case 4 (vulvodynia, myofascial syndrome, Visual Analog Scale 9/10). All 4 cases were presented by women of reproductive age from 26 to 35 years old. They were connected by the absence of pregnancy in their lives and prolonged unsuccessful treatment for more than 1-2 years, with persistent recurrence of symptoms. Each was informed about correct intimate hygiene – the rejection of cosmetics, the use of emollients and pads, a no-soap philosophy. The 1st line of treatment had been given: Case 1 – intermittent vaginally nystatin regimen 2 t / week for more than 6 months, 2 – hygiene correction, 3 – topical glucocorticoids (clobetasol propionate), 4 – myofascial release, muscle relaxants, pelvic physiotherapy. However, each patient noted the absence or sufficient improvement in the quality of life, the impossibility of a comfortable sex life. The second line of treatment was then selected – laser treatment with a combination of Er:YAG/Nd:YAG.

Laser	SP Dynamis Pro		
	Step 1	Step 2	Step 3 (if the SALV* is confirmed – ablation of scleroatrophy section)
Wavelength	Nd:YAG	Er:YAG	Er:YAG
Handpiece	R33	PS03X	PS03X
Spot size / Fiber tip	9 mm	7 mm	3 mm
Energy / Fluence	90-120 J/cm ²	10-12 J/cm ²	8-10 J/cm ²
Mode/Pulse	PIANO, 5 sec	SMOOTH	SP
Frequency		1.6 Hz	2 Hz
Distillate water	+	+	-
Passes/Repeats	2-3 minutes brushing to reach the temp. of 40°C	2-3 shots per position, 10% overlapping, 4-7 passes	2-3 shots on affected area 2-3 passes
Sessions	3 sessions 1 per month for 3 months		

*SALV = ScleroAtrophic Lichen of the Vulva



Dr. Alexandra Koteniatkina graduated from the Kyrgyz-Russian Slavic University in Bishkek in 2020 with a specialty in obstetrics and gynecology. After 5 years of experience in the maternity hospital, she attended advanced training with Fotona laser technologies and treating vulvar dermatoses. She has been working with the SP Dynamis Pro and StarWalker MaQX at the BeautyLab clinic (Bishkek) since 2022. Currently, she is researching scleroatrophic lichen of the vulva (PhD thesis) and works with chronic pelvic pain syndrome, vulvodynia, pelvic floor dysfunctions, and postcoital cystitis. StarFormer IntimaWave is actively used in working with pelvic floor dysfunctions.

CLINICAL CASE:

In the 1st case, a 26-year-old woman was diagnosed with recurrent vulvovaginal candidiasis (RVVC), who received an antifungal treatment regimen for a long time, unsuccessfully. As a result of the analysis for sensitivity to antifungal agents, resistance to nystatin was revealed, as a result, an intermittent anti-relapse regimen of taking nystatin vaginally 2 times a week for a period of 6-12 months was chosen, this improved clinical symptoms (itching, curd, whitish, discharge), but did not give repair of the skin and mucous membrane of the vulva, as a result of which external laser treatment was performed with the step-2 Er:YAG procedure for 3 times until complete stable remission.

In the 2nd case: single procedure of the 1 and 2 step were performed and the patient was completely satisfied with the result.

In the 3rd case: 2 procedures using only step 2 were performed in 2022, resulting in remission for 1 year, followed by recurrence of symptoms in 2023 + the appearance of a focus of scleroatrophy in the clitoris, rejection of the proposed therapy with clobetasol propionate 0.05% topically (clitoral area) – all 3 Steps were performed twice, with complete remission to the present.

In the 4th case: Steps 1 + 2 were performed twice – resulting in complete mucosal repair, pain reduction compared to VAS from 9/10 to 3/10. Currently, the patient is in rehabilitation due to myofascial syndrome. In all 4 cases, the patients got into stable remission for the health of the skin and mucous membrane of the vulva for 1-2 years. They are kept in touch.



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