



## Advantages of Outpatient Treatment of Vulvar Lesions with Erbium Laser and Micromanipulator

Silva Ottanelli, MD; Sylwia Corbara

### Introduction:

The advantages of the use of Er:YAG laser (SP Dynamis, Fotona) in functional gynecological restoration are well known, as are its effectiveness and safety in the ablative treatment of small gynecological and vulvar lesions.

Despite this, there are many outpatient situations in which the use of classic handpieces is difficult and not always suitable for the treatment of lesions, especially endovaginal cases.

The use of Erbium laser with a micromanipulator mounted on a colposcope optimizes this type of treatment. The system is very efficient because it enables the practitioner to obtain an optimal view of the bottom of the vaginal canal, allowing for more precise and accurate treatments with the laser.

In my personal outpatient experience I have had the opportunity to use the micromanipulator-laser-colposcope system in different types of treatments (see Table 1).

Laser	Dynamis
	<b>Step 1</b>
Wavelength	2940 nm
Handpiece	Micromanipulator
Spot size/Fiber tip	2 mm
Energy/Fluence	5 J/cm <sup>2</sup>
Mode/Pulse	SP
Frequency	30–40 Hz
Passes/Repeats	3–4 times
Sessions	1 session

Table 1: treated cases with the Er:YAG laser and micromanipulator system

Patient ID	Parity	BMI	PAP test	HPV test	colposcopy exam	histology	laser therapy
1_CB	1	18.4	dyskeratosis	56	flat condiloma h 11	condiloma	07 2021
2_IF	2		L-SIL	16-18	flat condiloma h 4-5-11-12	condiloma	12 2021
3_GG	0	18.9	negative	30	flat condiloma h 2-4	condiloma	02 2022
4_BA	1	23.6	L-SIL	negative	flat condiloma h 10-14 and 8-5 and right lateral	condiloma	07 2021
5_CS	2	22.2	L-SIL	positive	flat condiloma h 2-5-7	CIN 1	11 2021
6_BA	0	20.5	negative	16	flat warts upper third of vagina and fornix	condiloma	08 2021
7_DL GS	0	16.9	negative	n.e.	vulvar acumate warts	condiloma	11 2021
8_C BM	0	18.7	negative	56	vulvar and perianal condiloma	condiloma	12 2021

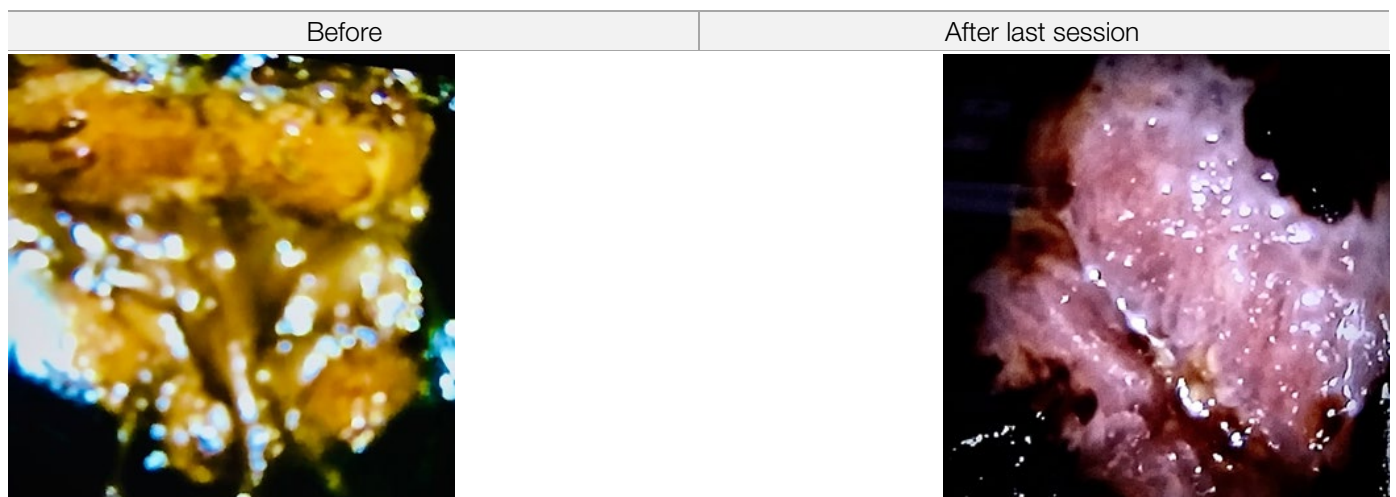


*Since childhood I wanted to be a doctor. Furthermore, being particularly inclined to interpersonal relationships, I soon convinced myself that not only I had to become a doctor, but that I had to choose a specialization, such as gynecology. This could have met two of my needs at the same time: to know the physiology and pathology of the female body and to establish over time a relationship of continuity of care and also of collaboration with my patients, from adolescence to old age.*

## CLINICAL CASE:

The cases that were treated concern different types of condylomas, and all have been classified according to the type and degree of lesion. Only for external vulvar treatments, anesthetic cream (EMLA, 2.25 mg/g cream) was applied half an hour before laser application. The parameters used were selected for the ablative mode, using the SP (short pulse) pulse from the surgery menu of the laser. The use of a 2 mm spot at a fluence of 5 J/cm<sup>2</sup> was selected.

At the vulvar level, spot-by-spot ablations were performed to maximize ablation accuracy and control of treatment depth, whereas in the cervix area, a brush mode treatment was performed at higher frequencies, from 30 to 40 Hz. All treatments were performed in the superficial ablative mode on the lesions and the treatment was expanded on the margin of safety of the lesions. In the reported case series, it was not necessary to use a coagulation preset because bleeding was not obtained. In the event of this necessity, we could use the coagulation presets from the laser menu (1 J/cm<sup>2</sup>, 10 Hz, XLP pr VLP, 4 mm spot). The possibility of a detailed view with the colposcope, combined with the simplicity and efficiency of the Er:YAG laser emission through the micromanipulator, speeds up the treatment and optimizes the precision and accuracy of the application.



No adverse effects of any kind were observed in any treatment in the reported case series, and patient satisfaction was total.

The duration of healing time averaged 10 days, with the patients advised to abstain from sexual intercourse for 4 weeks (in the case of endovaginal treatment) or 10 days (in the case of external vulvar treatments), and refrain from bathing in the bathtub, pool and douching.

The use of the micromanipulator in my outpatient experience is entirely positive. Specifically, the advantages of its use lie in:

- a superior, unobstructed view of the treatment area
- millimeter precision of the treated area
- freedom of cleaning between various passages
- greater speed of treatment
- greater sterility of the treated area (no contact with handpieces)

Micromanipulator treatment indications are: lesions of the cervix; ectropion; minor cervical surgery; treatment of vaginal and fornix pathologies; warts; minor vulvar surgery

Published by the Laser and Health Academy. All rights reserved. © 2022

Disclaimer: The intent of this Laser and Health Academy publication is to facilitate an exchange of information on the views, research results, and clinical experiences within the medical laser community. The contents of this publication are the sole responsibility of the authors and may not in any circumstances be regarded as official product information by the medical equipment manufacturers. When in doubt please check with the manufacturers whether a specific product or application has been approved or cleared to be marketed and sold in your country.

