

## **Clinical Note**

## **Laser Treatment of CIN and HPV Infection**

Enikő Kassai, MD

## Introduction:

Treatment of HPV infection with laser therapy is part of an ongoing research project conducted by gynecologist Dr. Enikő Kassai, MD in Hungary. Tentative trials from 2019 were performed with 30 patients and from 2021 with the new TimeWalker device based on Dr. Hui Li's publication in the Journal of the Laser and Health Academy. The objective of the therapy is the prevention of cervical cancer and reducing HPV virulence with a non-invasive treatment method. Observation history of the protocol: 2–3 years after HPV vaccination and two or three laser sessions, 90% of the patients with positive HPV test history had persistent negative test results. The description of the steps below are subject to change depending on the actual test results, age and other factors (e.g vaccination).

Laser	TimeWalker		
	Step 1	Step 2	Step 3
Wavelength	2940 nm	2940 nm	2940 nm
Handpiece	GRD DB	GRD DB	GRD DB
Fluence	9–12 J/cm²	10-13 J/cm <sup>2</sup>	2-4 J/cm <sup>2</sup>
Mode/ Pulse	MSP	MSP	MSP
Frequency	6 Hz	7 Hz	9 Hz
Passes/Repeats	4 times	3 times	3 times
Spot size	2 mm	2 mm	2 mm
Sessions	1 session per month for 3 months		



Dr. Eniko Kassai completed her medical degree in 1992, at University of Pecs Faculty, Budapest. In 2006 she became Specialist of Obstetrics and gynecology and at year 2010 Specialist of General practice. From 2008 she has private medical practice as Obstetrician and Gynecologist in Budapest. From 2019 to 2020 she did Gynecological Ultrasound Practitioner and Fotona Gynecological laser training.

## **CLINICAL CASE:**

Female patient (30) with cytological test results of HSIL, ASC-H and positive test results of CINtec Plus (Pi16), HPV16 and other high risk HPV. Punch biopsy result: HSIL/ CIN II. P16, block positivity detected with immunohistochemical reaction. No signs of malignancy. After 3 laser sessions: LSIL, Cintec Plus test results negative. 3 months after last session: cytological test results are negative. Control HPV test 6 months after last session: negative.



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