

Workshop Proposal : Vaginal Laser Application in Urogynecology IUGA 2017

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Laser-based treatments have been reported to stimulate collagen neogenesis and skin and tissue remodeling. As a result of the temperature increase, intermolecular cross-links that stabilize collagen triple-helix structure are broken, which leads to the shrinkage of collagen fibrils and improvement in tissue firmness. Laser has been used frequently in dermatological, ophthalmological and dental applications.

CO₂ and Erb-Yag lasers were recently recruited for intravaginal gynecological treatments, as it was expected to exploit natural healing responses and trigger epithelial tissue regeneration. Recent use of this modality showed promising results with endovaginal laser for treatment of patients with stress urinary incontinence and for vulvovaginal atrophy.

The aim of this workshop is to understand the physics and biology of the different vaginal laser treatments, and to summarize the recent clinical studies of treating various lower urinary tract symptoms (LUTS) with this modality. Special attention will be paid to GSM (genitourinary syndrome of menopause) and stress urinary incontinence. In addition, the potential use of this modality in special female population (oncological patients with C/I to local estrogens) and vulvar disease will be discussed.

At the end of the workshop the faculty will present the different treatment protocols and the needed research of this modality in urogynecology

Timeline:

Laser based vaginal treatments – physical principles and biological effect – 25 minutes

Prof. Menachem Alcalay

Q & A

Vaginal CO₂ Laser treatment of Genitourinary Syndrome of Menopause – 25 minutes

Prof. Stefano Salvatore

Q & A

Vaginal Erb-Yag laser treatment for Stress Urinary Incontinence – 25 minutes

Prof Ivan Fistonic

Q & A

Vaginal CO₂ laser treatment for stress urinary incontinence – 25 minutes

Q & A

Prof Menachem Alcalay

Break – 30 minutes

Vaginal CO2 laser for oncological patients with GSM and incontinence – 30 minutes

Prof Schibilia

Q & A

Vulvar disease treated by CO2 laser – 30 minutes

Prof Stefano Salvatore

Treatment protocols of different vaginal laser modalities and safety measures – 20 minutes

All faculty

Future research that is needed with vaginal laser – 10 minutes

All faculty

My current position is head of the Urogynecology unit in Sheba Medical Center and Pade Poria Medical center. My practice is combined of clinical load of urogynecology patients, teaching residents and medical students and clinical research.

I graduated from the Technion faculty of Medicine in Israel, and did Ob – Gyn residency in Chaim Sheba Medical Center. Since my return from a Urogynecology fellowship in US (Baylor College of Medicine) and UK (St. George's Hospital, London) in 2000, I developed the Urogynecology area in Sheba Medical Center, and it became one of the national leading centers in this field. Today, Gynecology and Urology residents are taking part in rotation with this unit to learn this area. In the last three years I also established a urogynecology unit in Pade Poria medical center, a smaller hospital in the northern part of Israel.

In Israel I contributed to the Urogynecology area as one of the founders of the Israeli Urogynecology Association in 2002, and still active in this association. In addition, I developed the use of 3D ultrasound for pelvic floor evaluation, and my service (with collaboration of the Sheba OB ultrasound unit) is one of the only centers today in Israel that using and teaching this application.

I am also taking part in various national and international urogynecology conferences as an invited speaker (a list is enclosed), and published more than 40 papers in peer reviewed journals. For these achievements I recently received assistant professor degree from Bar Ilan University.

In the recent years I am also acting as a consultant to the medical Israeli industry such as medical device and pharmaceutical companies (Israel Biomedical Innovations, Teva Pharmaceutical Company and others). With this experience I was exposed to R&D of medical device and pharmacological treatment and its implementation in urogynecology, including designing and leading clinical trials.

For the last year I am planning the prospective multicenter study in Israel of vaginal CO₂ laser use for stress urinary incontinence. I am the principal investigator on a research that is sponsored by Alma Lasers. This area drew my attention to understand the potential use of this technology in Urogynecology. Together with the other faculty members, who are using different laser companies for their research, we are planning to expose the audience to this fascinating technology, its potential use, and the needed further research in this area.

1. [Climacteric](#). 2015;18 Suppl 1:37-42. doi: 10.3109/13697137.2015.1071126.

2. First assessment of short-term efficacy of Er:YAG laser treatment on stress urinary incontinence in women: prospective cohort study.

3. [Fistonić N](#)¹, [Fistonić I](#)², [Lukanovič A](#)³, [Findri Guštek Š](#)², [Sorta Bilajac Turina I](#)⁴, [Franić D](#)⁵.

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