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# Short-term efficacy of vaginal CO<sub>2</sub> laser therapy as a treatment modality for genitourinary syndrome of menopause

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## Abstract

### Introduction

Genitourinary syndrome of menopause (GSM) affects up to 40-57% of postmenopausal women. Intravaginal microablative fractional CO<sub>2</sub> laser is a new proposal for the management of GSM, although the evidence of safety and efficacy of the procedure appears to be insufficient. Aim: The aim of the study was to assess the efficacy of fractional CO<sub>2</sub> laser for the treatment of GSM at the Department of Obstetrics and Gynecology of the University of Debrecen.

### Method

Postmenopausal women with symptoms of GSM underwent three sessions of microablative fractional rejuvenation CO<sub>2</sub> laser therapy at 4-6 weeks intervals. Vaginal health index (VHI) scores were completed before each treatment and at 6 weeks follow-up as an objective measurement and visual analog scale was used to assess subjective complaints. Statistical analysis included Student's paired two-sampling t-test for the measure of statistical significance using the standard cutoff for significance  $p < 0.05$ .

### Results

51 women participated (mean age  $57.0 \pm 9.9$  y). Average VHI score was  $14.0 \pm 4.9$  before treatment,  $15.0 \pm 4.7$  after the first session,  $18.2 \pm 4.6$  after the second treatment and  $19.5 \pm 4.9$  at follow-up. The improvement of VHI score was statistically significant between all sessions. Average VAS score was  $15.6 \pm 14.1$  before treatment,  $9.0 \pm 10.8$  after the first session,  $5.9 \pm 9.2$  after the second treatment and  $3.4 \pm 7.5$  at follow-up. The improvement of VAS score was statistically also significant between all sessions.

### Conclusions

Our study suggests that the fractional CO<sub>2</sub> laser is an effective and safe treatment of symptoms associated with GSM.