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# Microablative fractional CO<sub>2</sub> laser for the genitourinary syndrome of menopause: power of 30 or 40 W?

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## Abstract

This retrospective case-control study aimed to compare 30 versus 40 W power of CO<sub>2</sub> laser for the therapy of genitourinary syndrome of menopause (GSM). Postmenopausal women with severe intensity of dyspareunia and dryness were eligible to be included in this study. Primary outcomes were dyspareunia and dryness. Secondary outcomes were itching/burning, dysuria, frequency and urgency, Female Sexual Function Index (FSFI), vaginal maturation value (VMV), and Vaginal Health Index Score (VHIS).

One laser therapy was applied every month for 3 months. Outcomes were evaluated at baseline and 1 month following the 3rd therapy. Fifty (25 per group) women were included in this study. In the 30-W group, mean improvement of dyspareunia, dryness, itching/burning, FSFI, VMV, and VHIS was  $6.1 \pm 1.7$ ,  $6.0 \pm 1.9$ ,  $5.9 \pm 2.0$ ,  $16.6 \pm 6.7$ ,  $29.9 \pm 13.0$ , and  $11.0 \pm 2.9$ , respectively (within group comparisons all  $p < 0.001$ ). In the 40-W group, mean improvement of dyspareunia, dryness, itching/burning, FSFI, VMV, and VHIS was  $6.1 \pm 1.7$ ,  $6.5 \pm 2.0$ ,  $5.2 \pm 2.5$ ,  $14.8 \pm 7.1$ ,  $25.0 \pm 13.4$ , and  $10.5 \pm 4.1$ , respectively (within-group comparisons, all  $p \leq 0.001$ ).

Comparison between 30 and 40 W revealed that mean improvement or presence of all GSM symptoms and clinical signs was not statistically significant different. CO<sub>2</sub> laser therapy may improve GSM symptoms and clinical signs. This improvement did not seem to associate to power of 30 or 40 W.