

Effects of fractional microablative CO₂ laser therapy on sexual function in postmenopausal women and women with a history of breast cancer treated with endocrine therapy

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Aim: To evaluate the effects of fractional microablative CO₂ laser therapy on sexual function and the symptoms of the genitourinary syndrome of menopause (GSM) in postmenopausal women and women with a history of breast cancer treated with endocrine therapy.

Design: Retrospective chart review.

Patients and Methods: From July 2015 to October 2016, 25 women underwent fractional microablative CO₂ laser therapy at a single institution by a single provider. The primary objective of the study was to evaluate changes in sexual function and symptoms of GSM in women who underwent treatment by using several validated questionnaires including the Female Sexual Function Index (FSFI), Wong-Baker Faces Scale (WBFS), Female Sexual Distress Scale - Revised (FSDS- R), and the Patient Health Questionnaire (PHQ-9). Differences in outcomes between postmenopausal women and women with a history of breast cancer treated with endocrine therapy were also evaluated.

Results: For the 25 patients, mean age was 55.2 ± 9.5 years, average onset of menopause was 47.3 ± 6.3 years, and average duration of symptoms was 9.4 ± 7.6 years. Eight of the 25 patients had a history of breast cancer treated with endocrine therapy. Symptoms were assessed at baseline prior to treatment and six weeks after each treatment. Pre-treatment mean total FSFI score was 12.8 and post-treatment was 23.6 ($P = 0.004$). The largest average improvements from baseline were 1.70 for arousal ($P = 0.021$), 1.93 for lubrication ($P = 0.031$), 2.27 for orgasm ($P = 0.004$), and 2.53 for pain ($P = 0.001$). No significant differences in outcomes were observed between postmenopausal women and women with a history of breast cancer treated with endocrine therapy. Additionally, statistically significant improvements were observed in vaginal itching ($P = 0.013$), burning ($P = 0.004$), dryness ($P < 0.001$), painful intercourse ($P < 0.001$), and overall sexual distress ($P = 0.001$). Depression was not observed to have any significant effect on outcomes.

Conclusions: Fractional microablative CO₂ laser therapy is effective in treating the symptoms of GSM by improving sexual function and decreasing sexual distress in both postmenopausal women and women with a history of breast cancer treated with endocrine therapy.

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