

Fractional CO₂ laser therapy for genitourinary syndrome of menopause for breast cancer survivors

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Abstract

Purpose

Fractional CO₂ laser therapy is an emerging treatment for genitourinary syndrome of menopause (GSM). The objective of this study was to determine the feasibility and preliminary efficacy of fractional CO₂ laser therapy in breast cancer survivors.

Method

This was a single arm feasibility study of breast cancer survivors with dyspareunia and/or vaginal dryness. Participants received three treatments of fractional CO₂ laser therapy at 30-day intervals and returned for a 1-month follow-up. Feasibility was defined as treatment completion without serious adverse events (SAE) in 80% of patients. We collected data on the Vaginal Assessment Scale (VAS), the Female Sexual Function Index (FSFI), the Urinary Distress Index (UDI), and SAE.

Results

A total of 64 patients participated in the study. The majority of women had Estrogen receptor/Progesterone receptor (ER/PR) positive/Her2neu negative (n=37; 63%), stage I (n=32, 54%) or II (n=19, 32%) breast cancer. Most were receiving endocrine therapy (n=54, 92%), most commonly aromatase inhibitors (AI; n=40, 68%). Fifty-nine (88.1%) of those enrolled completed all treatments according to protocol with no reported SAE. No patient withdrew due to SAE. The scores of the VAS (mean Δ -0.99; 95% CI [-1.19, -0.79], $p < 0.001$), FSFI (mean Δ 9.67; 95% CI [7.27, 12.1], $p < 0.001$), and UDI (mean Δ -8.85; 95% CI [-12.75, -4.75], $p < 0.001$) improved from baseline to follow-up.

Conclusions

Fractional CO₂ laser treatment for breast cancer survivors is feasible and appears to reduce GSM symptoms across treatment and follow-up.