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Sexual function in women suffering from genitourinary syndrome of menopause treated with fractionated CO_2 laser

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Abstract

Introduction

Genitourinary syndrome of menopause (GSM) has a significant impact on the trophism of the genital and lower urinary tracts and can considerably impair sexual function. Fractional CO_2 laser has a regenerative effect on vulvovaginal tissue trophism after menopause.

Aim

To review the available literature on the effect of fractional CO_2 laser on the sexual function of postmenopausal women affected by GSM.

Methods

A database search was carried out using the terms CO_2 laser, vaginal atrophy, sexual function, dyspareunia, and genitourinary syndrome of menopause and excluding studies using other types of laser or including breast cancer survivors with vulvovaginal atrophy. For statistical analysis, the estimated overall laser effect was computed (when at least two studies were involved) and data type of generic inverse variance was computed using inverse variance as the statistical method, a random-effects model, and the difference in means as an effect measurement.

Main Outcome Measures

Different methods of evaluating sexual function were reported and studies were grouped and analyzed accordingly. Subjective assessment for dyspareunia was evaluated with a 10-point visual analog scale. Patient-reported outcome for an overall perception of sexual function was evaluated with a Likert scale. The Female Sexual Function Index was used as a condition-specific questionnaire.

Results

Six articles were considered for this review. A total of 273 women (mean age = 57.8 years) were treated with the same protocol in all studies. Compared with baseline, at the end of the treatment, dyspareunia significantly decreased in severity ($P < .001$), and the patient's perception of overall sexual function showed a statistically significant improvement ($P < .001$). At the last follow-up visit, the Female Sexual Function Index score for each single domain and overall score was significantly better than at entry ($P < .001$).

Conclusion

Fractional CO_2 laser can improve sexual function in postmenopausal women affected by GSM by restoring a better trophism in the lower genitourinary tract.