

Efficacy of fractional CO₂ laser treatment in postmenopausal women with genitourinary syndrome: a multicenter study

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Abstract

Objective

Genitourinary syndrome of menopause (GSM), especially vulvovaginal atrophy (VVA), is one of the most common conditions among women in either natural (4%-47%) or medically induced (23.4%-61.5%) menopause. The aims of this study are to assess the efficacy and effectiveness of CO₂ laser in postmenopausal women with clinical signs and symptoms of GSM, in particular VVA, and to evaluate both possible early and late side effects related to this kind of treatment.

Method

This retrospective, multicenter study was conducted after collecting data from a pre-existing database. We performed three to four CO₂ laser treatments on all the women enrolled in this protocol. We used a fractional CO₂ laser system (SmartXide2 V2LR, Deka m.e.l.a., Florence, Italy) with a VulvoVaginal Laser Reshaping (V2LR) scanning system and appropriate handpieces for the vaginal area. All women before and after the treatment were assessed. The pre- and post-treatment averages of the symptoms, the standard deviation, and the P values were calculated.

Results

Six hundred forty-five women who met the inclusion criteria were considered. In all the parameters examined (dyspareunia, vaginal orifice pain, dryness/atrophy, itching, burning, pH) statistically significant data were found between the pretreatment and the post-treatment (dryness: before=8.30, after=2.97 [P<0.0001], dyspareunia: before=8.70, after=3.51 [P<0.0001]; burning: before=6.12, after=1.78 [P<0.0001]; vaginal orifice pain: before=8.07, after=2.94 [P<0.0001]; itching: before=6.09, after=1.32 [P<0.0001]).

Conclusions

Our results show the effectiveness and a good degree of tolerance of treatment with the CO₂ laser system in postmenopausal women with GSM.