

# Fractional CO<sub>2</sub> laser for vulvovaginal atrophy (VVA) dyspareunia relief in breast cancer survivors

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# **Abstract**

## **Purpose**

The aim of this study was to evaluate the efficacy of fractional CO<sub>2</sub> laser therapy in breast cancer survivors as a therapeutic method for vulvovaginal atrophy (VVA) dyspareunia.

### **Methods**

50 patients (mean age 53.3 years) underwent fractional microablative  $CO_2$  laser treatment for dyspareunia in oncological menopause (mean time of menopause 6.6 years). The Gloria Bachmann's Vaginal Health Index (VHI) score was chosen as system to evaluate the presence of VVA and its improvement after the treatment. Intensity of dyspareunia was evaluated using a visual analog scale (VAS).

### Results

Data indicated a significant improvement in VVA dyspareunia (p < 1.86e-22) in breast cancer survivors who had undergone 3 sessions of vaginal fractional  $\rm CO_2$  laser treatment. Moreover, VHI scores were significantly higher 30 days post-treatment (T4) (p < 0.0001). 76 % of patients were satisfied or very satisfied with the treatment results. The majority (52 %) of patients were satisfied after a long-term follow-up (mean time 11 months). No adverse events due to fractional  $\rm CO_2$  laser treatment occurred.

### **Conclusions**

The treatment with fractionated  ${\rm CO_2}$  laser appeared to be a feasible and effective treatment for VVA dyspareunia in breast cancer survivors with contraindications to hormonal treatments