

Fractional CO₂ laser treatment of the vestibule for patients with vestibulodynia and genitourinary syndrome of menopause: a pilot study

Murina F¹, Karram M², Salvatore S³, Felice R¹

1: V. Buzzi Hospital, Milan - Italy. 2: The Christ Hospital, Cincinnati, OH – USA.

3: San Raffaele Hospital, Milan – Italy.



Abstract

Introduction

Chronic vulvar pain and burning remains one of the most perplexing problems faced by practicing gynecologists.

Aim

To evaluate the effectiveness and safety of the application of micro-ablative fractional CO₂ laser to the vulvar vestibule in the management of patients with vulvar pain from vestibulodynia or genitourinary syndrome of menopause.

Methods

Patients (N = 70) underwent fractional micro-ablative CO₂ laser treatment for vestibular pain plus vestibulodynia (n = 37) or genitourinary syndrome of menopause (n = 33). Inclusion criteria were the existence of vestibular atrophic changes and the absence of moderate or severe pelvic floor hypertonic dysfunction.

Main Outcome Measures

A visual analog scale of pain and the Marinoff score of dyspareunia were chosen to evaluate improvement. Grading of vestibular health also was quantified using a four-point scoring system (0 = no atrophy, 3 = severe atrophy). Data were collected at baseline, at weeks 4, 8, and 12, and 4 months after the final treatment.

Results

For visual analog scale and dyspareunia scoring and for the overall vestibular health index scoring, statistically significant improvement was noted after three sessions of vestibular fractional CO₂ laser treatment. Improvement gradually increased throughout the study period and was maintained through the 4-month follow-up visit. There was no statistically significant difference in outcomes between the two study groups. No adverse events from fractional CO₂ laser treatment were noted. Overall, 67.6% of patients stated significant improvement from the laser procedure.

Conclusion

This preliminary case series showed encouraging results using fractional CO₂ laser treatment of the vestibule in women with vestibulodynia and genitourinary syndrome of menopause.