

# Fractional CO<sub>2</sub> laser treatment for vaginal atrophy and vulvar lichen sclerosis

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## Abstract

### Objectives

The aim of this research was to assess the efficacy of fractional CO<sub>2</sub> laser energy for treating vaginal atrophy and lichen sclerosis.

### Materials and Methods

The first study population was 23 postmenopausal women diagnosed with vaginal atrophy via microscopic evaluation and who were symptomatic. The second study population was 27 postmenopausal women diagnosed with lichen sclerosis by biopsy and who were symptomatic. Patients with vaginal atrophy had 3 treatment sessions spaced at 4–6 weeks between each session. Laser settings for this group were: power: Watts, 30; time, 1000 microseconds; and spacing, 1000 micrometers. For the lichen sclerosis group, the power was set at 20 Watts and 3–4 treatments were given at 4–6-week intervals.

### Results

In the vaginal atrophy cohort, 22/23 women who previously complained of dryness and discomfort had these symptoms alleviated and vaginal microscopic exam showed significant changes in color, elasticity, and wetness following 3 courses of CO<sub>2</sub> laser fractional treatment; additionally 20/23 women had elimination of urinary frequency and urgency, 18/21 women had alleviation of dyspareunia. In the lichen sclerosis cohort 24/27 patients who had laser treatment reported cessation of itching and pain/discomfort; and 26/27 women demonstrated visible improvement of skin color, elasticity, vascularity following 3–4 laser treatments. All examinations were performed with the operating microscope.

### Conclusions

The fractional CO<sub>2</sub> laser beam is useful for treating vaginal atrophy and lichen sclerosis. This new technique represents a significant divergence from estrogenic-, steroid- and corticosteroid-bulwark dependence. All treatments were performed in an office setting and were associated with either no pain or, at the most, minimal and temporary discomfort. This new use of the CO<sub>2</sub> laser is an excellent alternative for managing these two troublesome problems, particularly in postmenopausal women.