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The application of fractional CO₂ laser in the treatment of vulvar lichen sclerosis

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Abstract

Objectives

To investigate the efficacy and side effects for fractional CO₂ laser in the treatment of vulvar lichen sclerosis (VLS).

Methods

31 patients with VLS symptoms were enrolled prospectively from July 2015 to April 2016 in Peking University People's Hospital. The fractional CO₂ laser was used for VLS lesions, a total of 3-5 times, each time per-month. Visual analogue scale (VAS) was assessed the degree of vulvar pruritus, skin chapping, dyspareunia before and after treatment. After the treatment, satisfaction survey was done.

Results

The rate improvement of VLS symptoms was 90.32% (28/31) with fractional CO₂ laser ($P < 0.001$). Compare with before treatment, there were significant difference in pruritus score at the first and the third after treatment one month (8.07 ± 1.97 vs. 3.43 ± 0.94 and 1.93 ± 0.62 , $P < 0.001$), vulvar skin chapping score (3.5 ± 1.79 vs. 1.36 ± 1.22 and 0.64 ± 0.84 , $P < 0.005$), respectively. The dyspareunia score (4.29 ± 2.70 vs. 1.14 ± 0.95 , $P < 0.05$) were improved significantly at the third after treatment one month. After treatment 48h, there were 2 cases with mild pain, 6 cases with local mils hyperemia, 4 cases with mild swelling. No adverse events due to fractional CO₂ laser treatment occurred. During 3-7 months follow-up, 4 cases (12.9%) with the skin color from white to gray, 2 cases recovered sex from 6 cases. The overall satisfaction rate was 96.77% (30/31).

Conclusions

The fractional CO₂ laser is effective, minimal injury and acceptable side effects for vulvar lichen sclerosis, and may be a new treatment for it.