

APPLIED USE OF CARBON DIOXIDE IN COSMETOLOGY

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Introduction. Striae are a specific form of scar tissue that is formed as a result of damage (breaks) of collagen and elastin fibers. Striae hardly respond to treatment by any method of correction. Popular retinoid therapy or microdermabrasion or laser skin resurfacing have no significant effect. In addition, laser therapy is unsafe for people with dark skin or with a predisposition to cancer.

The aim of that work is familiarization with a new method of therapy. Invasive and non-invasive carboxytherapy is the available, effective and safe (for all skin types) treatment of a new and old of striae by restoring collagen fibers.

The mechanism of action of carboxytherapy in striae treating includes several biochemical processes. Carbon dioxide stimulates blood circulation and increases the release of oxygen by means of oxyhemoglobin, tissues has a powerful incentive to regeneration. The subcutaneous tissues after a few sessions of carboxytherapy are restructured: fibrous commissures are destroyed, homogeneity of supporting tissues are achieved. In addition, carboxytherapy activates the synthesis of collagenase, elastin and hyaluronic acid by stimulating of fibroblast function. On this mechanism it is based most pronounced aesthetic result of carboxytherapy increase of skin elasticity.

Opinions about carboxytherapy of patients with striae are positive in 98% of cases. Carboxytherapy improves the state of various types of scars after 1-2 procedures: acne, less traumatic and postoperative. CO₂ improve the local vascularization, promotes oxygenation and softening striae.

Regime of administration: for fresh striae requires from 2 to 4 sessions of carboxytherapy with a break for a week; for striae, that more than a year, it takes 3-4 sessions carried in a month, the course of 8-12 sessions, the depth of administration is 5-6 mm.

Carbon dioxide is non-toxic natural metabolite of our body. Therefore, in the application of CO₂ have not been identified serious side effects. The first few seconds after a session is possible burning and heat sensation, itchiness in the place of injection. Treatment of striae is relatively painless because it has no nerve endings. A person can feel the pressure in the CO₂ injection field.

In **conclusions** carboxytherapy is a method of aesthetic treatment based on an effective and non-toxic naturally occurring metabolite of the body which is becoming popular day by day and used for the treatment of striae and other skin diseases.