



APPLICATION OF CARBOXYTHERAPY IN DERMATOLOGY

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Abstract

Carbon dioxide (CO₂)-based carboxytherapy is the most popular treatment that has been officially recognized worldwide and has become an alternative to pharmacotherapy for many. CO₂-therapy in dermatology is shown at treatment of such skin diseases as limited neurodermatitis, an acne, a focal sklerodermiya, psoriasis, eczema, hems of various origin, an allergodermatoza and also for improvement of blood circulation, strengthening of protective properties of skin, faster healing of wounds (diabetic, ischemic, postoperative and post-traumatic), burns, ulcers, dermal pruritus decrease, allergic reactions and inflammatory processes The journal covers all aspects of pharmacology. Manuscripts are accepted for consideration by Pharmacologyonline on the condition that they represent original material, have not been published previously, are not being considered for publication elsewhere, and have been approved by each author. Combination of carboxytherapy and traditional methods of treatment in aesthetic cosmetology, dermatology, plastic surgery allows achieving synergistic vasodilating effect and reorganization of intradermal collagen. Thus, in aesthetic medicine, carboxytherapy is widely used to eliminate deep wrinkles (on the lips, forehead and around the eyes), to lift the skin when hanging cheeks, the appearance of folds on the neck (double chin), the neckline; age-related skin pigmentation, in blepharoptosis, to correct the figure (fat deposits, cellulitis), eliminate vascular sprockets, striae, scarring, as well as to enhance the effect of other aesthetic procedures; in dermatology - in chronic and poorly healing wounds, trophic ulcers and keloid scarring, alopecia, psoriasis, eczema, in plastic surgery - before and after liposuction, in complications after this procedure, in the period of rehabilitation after burns

Keywords: *carbon dioxide, dermatology, cosmetology, aesthetic medicine*

Introduction

Carbon dioxide (CO₂)-based carboxytherapy is the most popular treatment that has been officially recognized worldwide and has become an alternative to pharmacotherapy for many diseases [11, 7, 40, 16, 21].

CO₂-therapy in dermatology is shown at treatment of such skin diseases as limited neurodermatitis, an acne, a focal sklerodermiya, psoriasis, eczema, hems of various origin, an allergodermatoza and also for improvement of blood circulation, strengthening of protective properties of skin, faster healing of wounds (diabetic, ischemic, postoperative and post-traumatic), bums, ulcers, dermal pruritus decrease, allergic reactions and inflammatory processes [27, 18, 15, 36, 9].

In dermatology, carboxytherapy is used in diffuse lipomatosis - a disease in which abnormal, progressive deposition of adipose tissue occurs in certain areas of the body. At the same time under the influence of CO₂ injections there is a local correction of a tissue hypoxia owing to Verigo-Bor effect, stimulation of skin endothelial growth factors, neoangiogenesis and fibroblast, collagen synthesis improvement, a vazodilyatation (arteriole basal tone decreases that promotes strengthening of a blood-groove). All of the above effects lead to stimulation of the wound healing process. Therefore, the therapeutic effect of carboxytherapy is used not only to reduce signs of aging and aesthetic rejuvenation, but also to accelerate the healing of skin injuries of various etiologies, which due to CO₂ are restored faster and better, with minimal complications [30, 47, 12, 14].

Trophic ulcers and keloid scars (with complicated CD) are well treatable with carboxytherapy. Due to the strengthening of oxygenation and regeneration processes, as well as antibacterial properties CO₂ the healing and alignment of the skin is accelerated, which ultimately gives it a more aesthetic appearance (relaxation of rigid fibers in the ulcer area occurs (Fig. 1; 2; 3) [16, 21].

Carboxytherapy used to treat psoriasis - a chronic autoimmune skin disease. It is characterized by the appearance of papules of red, white and gray, hyperkeratosis, cracks, and sometimes pustule. The effects of CO₂ in this pathology are achieved by

improving local vascularization and oxygenation with CO₂ injections, as well as its anti-inflammatory, antiallergic, antihypoxic, antioxidant, regenerating, analgesic and antimicrobial effects [25, 28].

Red flat lichen - is a disease that belongs to the group of intractable dermatoses. The use of CO₂ injections during remission in many cases due to antibacterial, antihypoxic, antioxidant and anti-inflammatory effects brings significant relief to the patient, visual improvement of the skin structure (Fig. 4) [4].

In cosmetology and dermatology, CO₂ gas injections in combination with mesotherapy, lipolytic mesotherapy, chemical peeling, rejuvenation (photothermolysis and disincrustation), due to synergy of effects CO₂ repeatedly enhances the impact so several times fewer procedures are required [1].

Also, CO₂ used successfully and after plastic operations (liposuction or ultrasonic liposuction, facial tightening, blepharoplasty) as a powerful rehabilitation and rapid skin tightening [41].

Summarizing the above, it should be noted that in invasive and non-invasive dermatology and cosmetology carboxytherapy, due to their main effects, is applied for the following indications:

- ✓ Smoothing wrinkles on the face and folds on the neck (area of the feather, external surface of the eyes, around the eyes and lower eyelids, double chin, etc);
- ✓ Regeneration stimulation of post-acne scars (Figure 5) and their reduction
- ✓ Elimination of flabby (reduced turgor) skin in the neck and neckline area and double chin;
- ✓ Restoration of skin color in age-related hyperpigmentation and freckles, after cosmetic procedures and excessive insolation, when signs of photoaging appear;
- ✓ Reduction of pastosity, edema and lightening of the area around the eyes (dark circles and cyanosis treatment);
- ✓ Deep skin moisturization in cooperosis treatment;
- ✓ Improving the tone of the abdomen skin of, shoulders, arms and other parts of the body (the inner surface of the hips and forearms, as well as after brachioplasty);
- ✓ Reduction of stretch marks and their elimination (after pregnancy or weight loss);

- ✓ Normalization of sebaceous glands; for fat cleavage, toxin excretion, for fat layer reduction in lipomatosis treatment, for rehabilitation after liposuction;
- ✓ Reduction of skin change after burns, scars, keloid scars, ulcers (Figure 6);
- ✓ Reduction of alopecia severity;

Various indications for the use of carboxytherapy in cosmetology and dermatology are provided by the following effects:

- ✓ Oxygen saturation of cells (oxygenation enhancements);
- ✓ Activation of neoangiogenesis, improvement of skin vessel microcirculation, metabolic processes;
- ✓ Stimulation of collagen, elastin, hyaluronic acid production;
- ✓ Reduction of acid-alkaline equilibrium and homeostasis;
- ✓ Skin toxins removal;

Significant anti-inflammatory, anti-edema, analgesic, antiseptic, regenerating, antioxidant, protective properties [51, 33, 13];

Combination of carboxytherapy and traditional methods of treatment in aesthetic cosmetology, dermatology, plastic surgery allows achieving synergistic vasodilating effect and reorganization of intradermal collagen. After 2 weeks from treatment beginning can be visually observed increasing tone and other aesthetic parameters of skin health [38].

Thus, in aesthetic medicine, carboxytherapy is widely used to eliminate deep wrinkles (on the lips, forehead and around the eyes), to lift the skin when hanging cheeks, the appearance of folds on the neck (double chin), the neckline; age-related skin pigmentation, in blepharoptosis, to correct the figure (fat deposits, cellulitis), eliminate vascular sprockets, striae, scarring, as well as to enhance the effect of other aesthetic procedures; in dermatology - in chronic and poorly healing wounds, trophic ulcers and keloid scarring, alopecia, psoriasis, eczema, in plastic surgery - before and after liposuction, in complications after this procedure, in the period of rehabilitation after burns [19, 10, 39, 5, 24, 52].

Carboxytherapy in alopecia

Alopecia of various sizes are treated: numerous with a diameter of 1 cm; vast areas, up to total alopecias. Injections of CO₂ are performed intradermally or subcutaneously in order to enhance blood supply of hair follicle and improve innervation [31, 20, 45, 23, 35].

The angle of needle inclination must be 15° - 30°, dose CO₂ is 5 ml, injection depth 1-2 mm, needle length 4-6 mm: the distance between injections is 1-2 cm (depends on the sensitivity of the patient). After improving of hair growing, the distance between injections must to increase. The effect becomes noticeable after 3-4 sessions, and the final result will be achieved after the course of injections CO₂ (Figure 7).

At the beginning of the course of carboxytherapy, CO₂ injections must be done 2 times per month, in average 6-8 injections. After hair growth begins, the intervals between procedures increase to 1 time a week or 10 days. The entire number of procedures is 16-22 sessions. If there are no noticeable improvements within 2 months, it is recommended to stop the procedure. CO₂ injections into problem areas of the scalp stimulates blood circulation, neoangiogenesis, oxygen and nutrients delivery to the hair bulb [45, 35].

Carboxytherapy is used as an additional therapy for the treatment of small psoriatic plaques located in the ulna, knee and other zones. All injections of CO₂ are performed subcutaneously in two ways: the first-around plaque in a safe area of the skin (Figure 8 A); the second - once, in the middle of the plaque (Fig. 8 B). The volume of CO₂ per session is 20-40 ml. The angle of the needle inclination is 15° - 30°, dose 5 ml, needle length 30G - 6-12 mm, the distance between injections is 2 cm. The recommended number of carboxytherapy sessions is 5-15, 1-2 times a week. The number of procedures depends on the local status and patient health [29].

Carboxytherapy for lichen ruber hypertrophicus

The foci of the red flat herpes are located on the front and side surfaces of the lower leg and on the rear sides of the legs. CO₂ is injected intradermally directly into the focus, the angle of inclination of the needle is 15° - 30°, the dose is CO₂ - 5 ml, the length of the needle is 6-12 mm.

The distance between injections depends on the size of the lesions and their local status. The recommended number of CO₂ sessions is 5 - 15 with a frequency of 1-2 times a week. The number and frequency of sessions depends on the diagnosis and patient health.

Carboxytherapy in scleroderma

Experience with carboxytherapy implementation in this pathology is a little (there are no studies of large groups of patients) [6, 8].

CO₂ injections must be done intracutaneously directly into the lesions, the angle of needle inclination is 15° - 30°, the dose is 5 ml, the length of the needle is 30G 6-12 mm, the distance between injections depends on the size and focus. Recommended number of sessions CO₂ 5-15, 1-2 times a week. The number and frequency of sessions depends on the diagnosis and patient health (Figure 9).

Carboxytherapy in cosmetology and aesthetic medicine

Upper and lower eyelid processing

CO₂ injections must be done intracutaneously into the eyelid area, about 2 cm from the outer corner of the eye, with a needle angle of 15° - 30°, dose 5-10 ml., Needle length 4-6 mm. The patient, despite visible swelling after the procedure, does not feel pain (Figure 10). It is desirable to perform 2 injections at a distance of 2 cm from each other in the direction from the lower eyelid (Figure 11). In patients with "porcelain skin" it is necessary to use a lower dose of CO₂ [37].

Forehead and glabella treatment

Each periorbital area must be processed individually: you need to process the glabella and forehead, and then go to the cheek area. CO₂ injection must be only intradermal, needle inclination angle is 150-300, dose is 5-10 ml, needle length is 4-6 mm [3].

Injections in the forehead are recommended to begin along the line 1-2 cm above the upper eyelid. The distance between injections and lines is 3 cm (Figure 12). In the area of the glabella injection is carried out over the wrinkle towards the root of the nose, sometimes in the upper eyelid region in the inner corner of the eye.

Treatment the cheek area

CO₂ injection must be only intradermal, needle inclination angle is 150-300, dose CO₂ 5-10 ml, needle length is 4-6 mm. Antegrade method must be used. Injections must be parallel along line copying shape of face and lower jaw, distance between injections is 3-4 cm, then one injection is performed in area of external line along axis and one injection in the middle of cheek.

Raising the "fallen" corners of the mouth

CO₂ injection must be at a distance of about 1 cm from the corner of the mouth. Two injections must be done into the nasolabial wrinkle, in the middle of the nasolabial wrinkle and above the corner of the mouth. Linear injection is CO₂ performed retrograde. For chin treatment 1-2 CO₂ injections is enough (Figure 13).

Dark circles under eyes treatment

Injections CO₂ must be performed antegrade subcutaneously in the area of the lower eyelid very superficially, needle inclination angle 150-300, dose 5 ml, needle length 4-6 mm. It is necessary to minimize the number of injections (Fig. 15) [48].

Injections are started from the outer angle of the eyes, about 1 cm under the edge of the lower eyelid, and are continued along the line in the direction of the outer angle of the eye. The distance between injections is 1-1.5 cm, the total number of lines is 2-3 at a distance of 1 cm from each other. CO₂ form small papules, but they quickly disappear (Figure 16).

Another method of CO₂ injection is the linear sparing method: under the edge of the lower eyelid, one injection is about 1 cm from the inner corner of the eye, the second - in the area of the outer corner

of the eye, the third - about 1.5 cm lower between previous injections.

Neck and neckline treatment

CO₂ injection must be done subcutaneously, the angle of inclination of the needle is 15° - 30°, dose 5-10 ml, needle length 4-6 mm. During treatment different methods can be used depending on the place CO₂ injection and at the discretion of the doctor (Figure 17). For example, the Popcom method: dose CO₂ 5 ml, needle length 12 mm, small papules are created at a distance of 2-3 cm along two or three lines located at a distance of about 3 cm in the direction from the top of the processus mastoideus to the collarbone, first from one side and then from the other side of the neck, and the "Linearic" method - 2-3 injections directly into deep wrinkles, needle length 12 mm.

Double chin treatment

The main task of carboxytherapy is lipolysis of local fat deposition and improvement of skin tone. It is enough 2-4 injections of CO₂, subcutaneously, the angle of inclination of the needle is 45°, CO₂ is used with antegrade method, needle length 12 mm (Figure 18).

Sagging underarm skin treatment

Subdermal administration method is used, the angle of inclination of the needle is 45°, CO₂ is used antegrade, the length of the needle is 12 mm. Usually, three lines are selected from the axillary fossa in the direction of the elbow, the distance between the pricks and the lines is approximately 3-4 cm (Fig. 19) [17].

Treatment of the back of the hands to rejuvenate the skin

CO₂ injection must be done intradermal, angle of needle inclination is 150-300, dose is 5-10 ml, needle length is 6-12 mm [53]. Usually 4-5 injections are enough: in the middle of the back of the hand and in

the wrist area. The penetration of CO₂ into tissues is very rapid, as is the final effect (Figure 20).

Cellulite treatment

Carboxytherapy is used primarily for the purpose of using the lipolytic effect of CO₂. Cosmetic effect is partial, therefore no complete disappearance of cellulite occurs [22, 34, 46, 44].

Subdermal method of CO₂ injections is used for hip and gluteal area treatment, the angle of needle inclination is 45°, the length of the needle is 12 mm, the dose is 10-20 ml. The procedure is carried out 1-2 times a week, with the hip approximately divided into 6-8 zones: 4 on the front side and 2-4 zones on the back side. In each zone 4-8 injections are performed (Fig. 21).

Warning. When performing carboxytherapy in the hip area, it is necessary to know the location of large vessels - mainly vena saphena magna (superficial and deep systems) - and not to use at risk points (1 - crossing of large vessels, 2 - Gunther perforant in the middle of the hip, 3 - Dodd perforant, 4 - Boyd perforant) (Fig. 22)

The area of the inner upper femurs: subcutaneous administration, needle angle 45°, needle length 12 mm, dose CO₂ 5-15 ml, the procedure is carried out once a week. In patients with increased sensitivity to pain, it is necessary to perform local cooling before starting the procedure.

In cellulitis and/or local fat deposition, the carboxytherapy course may include 8 to 15 procedures. It is held 3 times a week as an intensive course, and up to 1 time a month as a supportive procedure.

To treat cellulitis and reduce local fat deposits, the depth of CO₂ injections is from 4 mm to 8-10 mm, which allows improving lymphatic drainage and outflow of cell decay products at the proper depth. The course of treatment of cellulitis with carboxytherapy usually consists of 8-12 procedures with an interval of 1-2 weeks, in individual cases the procedures in the first half of the course are carried out 3 times a week in the area of fat deposits.

Fresh scars treatment

CO₂ injections must be done at a needle inclination angle of 45°, needle length 4-6 mm, dose 3-5 ml, the procedure is carried out 2 times a week [50]. It is necessary to select the CO₂ processing zone departing 1-2 cm from the scar (Fig. 23). The course of therapy will require from 4 to 8 sessions.

Abdominal visceral fat treatment

In overweight patients, it is recommended to reduce body weight, and then start a course of carboxytherapy [2]. It is necessary to divide the abdomen into zones: two in the upper abdomen, four in the lower abdomen. Zones are processed simultaneously or with a one-week break (Figure 24). 10 injections are made into one designated area. If necessary, you can process the designated zones several times. Minimum number of procedures from 15 to 20. CO₂ is administered subdermally with needle inclination angle of 45°, needle length of 12 mm, dose CO₂ from 10 to 20 ml (depending on patient sensitivity).

In the combination of carboxytherapy and liposuction, the CO₂ is administered over the entire abdominal surface to a depth of 4 mm according to the scheme: 1-2 sessions per week 3 weeks before liposuction, then 10 days after liposuction 2 sessions per week for 2 months, 12 sessions per course of treatment. Needle 25-27G (deep) and 30G (superficial), dose CO₂ 20-25 ml per injection (deep) and 5-10 cm³ per injection (superficial).

Stretches and striae treatment

For striae treatment, injections must be performed in two stages. At the first stage, with the formation of small papules: injection of CO₂ should be performed very superficially directly into the stretches (smaller), the angle of inclination of the needle is 150-300, the dose is 5-10 ml, the length of the needle is 4-6 mm [17].

At the second stage - the linear method (more expressed stretches, wide and long ones), the zone is treated retrograde, the distance between injections depends on the length of the stretch (Figure 25). Both methods can be used

simultaneously, but it is recommended to treat stretches systematically in two stages. There is a cosmetic effect, but stretches do not completely disappear (it is necessary to combine with other types of treatment).

During stretches treatment, a long course is carried out: 1 session every 15 days for 3-4 months; deep CO₂ injections (200 ml to a depth of 5-6 mm), or multiple surface injections (up to 5 ml per injection to a depth of 1 mm in each stretch). With stretches (reduced facial and neck skin elasticity), the CO₂ insertion depth is 1 mm to enhance collagen production and 2 mm with deep wrinkles in the face and neck (for example, a nasolabial fold). A total amount is 8 to 12 injections (determined depending on the amount of stretch marks) for 15 days. During stretches treatment, the first results of carboxytherapy are visible from the 3rd injection, but the optimal term is a few months later.

For fresh stretches treatment, from 2 to 4 procedures of carboxytherapy are carried out with a one week break between them. Expressed stretches treatment requires a course of carboxytherapy for more than a year: 3-4 sessions conducted after a month. The carboxytherapy session takes from 15 to 30 minutes. Each carboxytherapy course is 10 sessions (10-12 injections CO₂ during each session). This ensures the stability of the effect for one year.

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Table 1. Summary carboxytherapy use in dermatology [49, 35, 19, 10, 39, 5, 24, 52, 18]

Correction area	Injection lines CO ₂	Needle length	Dose CO ₂	Inclination angle
alopecia	The distance between injections is 1-2 cm. At the beginning of the course of carboxytherapy, CO ₂ injections must be done 2 times a month, in average 6-8 injections. After hair growth begins, the intervals between procedures increase to 1 time a week or 10 days. The entire number of procedures is 16-22.	4-6 mm	5 ml	15-30°
psoriasis	CO ₂ injections must be done intracutaneously in two ways: the first - around the plaque in a safe area of the skin; the second - once, in the middle of the plaque. The distance between injections is 2 cm.	6-12 mm	1-5 ml	15-30°
Scleroderma	CO ₂ injected intracutaneously directly into lesions.	6-12 mm	5 ml	15-30°

Table 2. Carboxytherapy in cosmetology and aesthetic medicine [1, 2, 15, 17, 22, 27, 43, 50, 53]

Correction area	Injection lines CO ₂	Needle length	Dose CO ₂	Inclination angle
Upper and lower eyelid processing	2 injections are performed at a distance of 2 cm from each other in the direction from the lower eyelid. Each periorbital area is processed individually in a sequence: glabella and forehead, and then the cheek area.	4-6 mm	5-10 ml	15-30°
Forehead and glabella treatment	Injection in the forehead area is recommended to begin along the line 1-2 cm above the upper eyelid. In glabella area injection is performed over wrinkle towards nasal root.	4-6 mm	5-10 ml	15-30°
Treatment the cheek area	An antegrade method is used. Injections are performed in parallel along the line copying the shape of the face and lower jaw, the distance between injections is 3-4 cm.	4-6 mm	5-10 ml	15-30°

Raising the "fallen" corners of the mouth	CO2 injections conduct at a distance of about 1 cm from the corner of the mouth. Two injections must be made into the nasolabial wrinkle: in the middle of the nasolabial wrinkle and above the corner of the mouth.	4-6 mm	1- 5 ml	15-300
Dark circles under eyes treatment	The treatment begins with an internal angle of the eyes, about 1 cm under the edge of the lower eyelid and continues in the direction of the external angle of the eye. The distance between injections is 1-1.5 cm, the total number of lines is 2-3 at a distance of 1 cm from each other.	4-6 mm	5 ml	15-300
Neck and neckline treatment	Different methods are used depending on the place of treatment at the discretion of the doctor	4-6 mm	5-10 ml	15-300
Double chin treatment	It is sufficient 2-4 injections, subcutaneous administration, by antegrade method.	12 mm	5-10 ml	450
Sagging underarm skin treatment	Three lines are selected from axillary fossa in direction of elbow, distance between pricks and lines is 3-4 cm.	12 mm	5-10 ml	450
Treatment of the back of the hands to rejuvenate the skin	4-5 injections are performed: in the middle of the back of the hand and in the wrist area.	6-12 mm	5-10 ml	15-300
Cellulite treatment	It is carried out 1-2 times a week, with the hip approximately divided into 6-8 zones - 4 on the front side and 2-4 zones on the back side.	12 mm	10-20 ml	450
Fresh scars treatment	It is necessary to select a zone for processing, departing 1-2 cm from the scar	4-6 mm	3-5 ml	450
Abdominal visceral fat treatment	It is necessary to divide the abdominal area into zones: two in the upper abdomen, four in the lower abdomen. Zones are processed simultaneously or with a one-week break.	12 mm	10-20 ml	450

Stretches and striae treatment	At the first stage, CO ₂ is injected directly into the stretches (smaller ones). At the second stage - the linear method (more pronounced strings, wide and long stretches), the zone is treated retrograde, the distance between injections depends on the length of the stretch.	4-6 mm	5-10 ml	15-300
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Figure 1. A - Non-healing wounds in diabetes mellitus after surgery amputation of 4-5 fingers of the left leg, B - effect after 23 sessions of carboxytherapy



Figure 2. A - Non-healing leg perforation wounds (malum performans pedis), Б - effect after 7 sessions of carboxytherapy

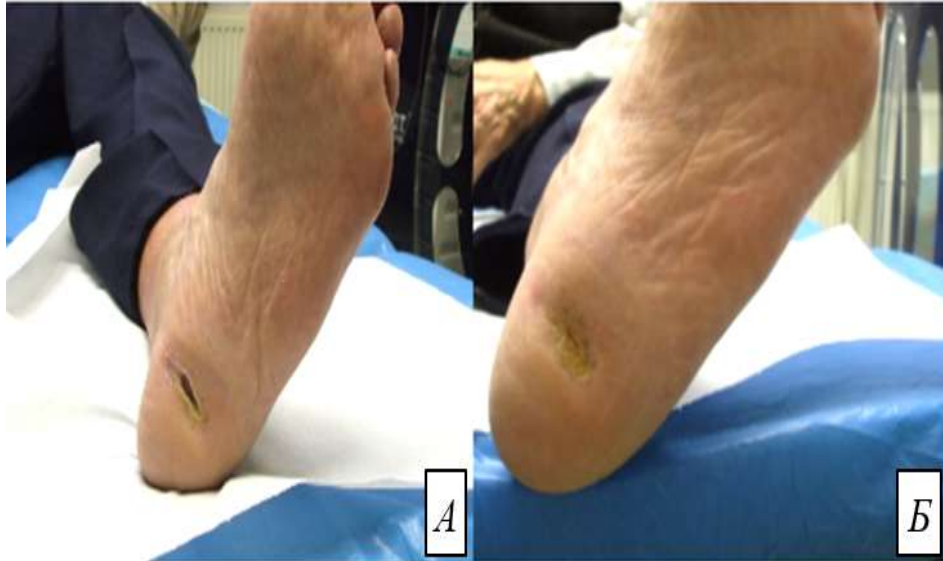


Figure 3. A - Non-healing wounds of the right ankle joint skin, Б - effect after 10 sessions of carboxytherapy, B - after 20 sessions, Г- after 30 sessions of carboxytherapy



Figure 4. Lichen hypertrophic scar before (A) and after invasive carboxytherapy (B)



Figure 5. Post-acne, acne, rosacea before and after carboxytherapy treatment



Figure 6. Scar before and after carboxytherapy



Figure 7. Technique of CO₂ introduction during alopecia



Figure 8. First (A) and second (B) methods of carboxytherapy in plaque psoriasis

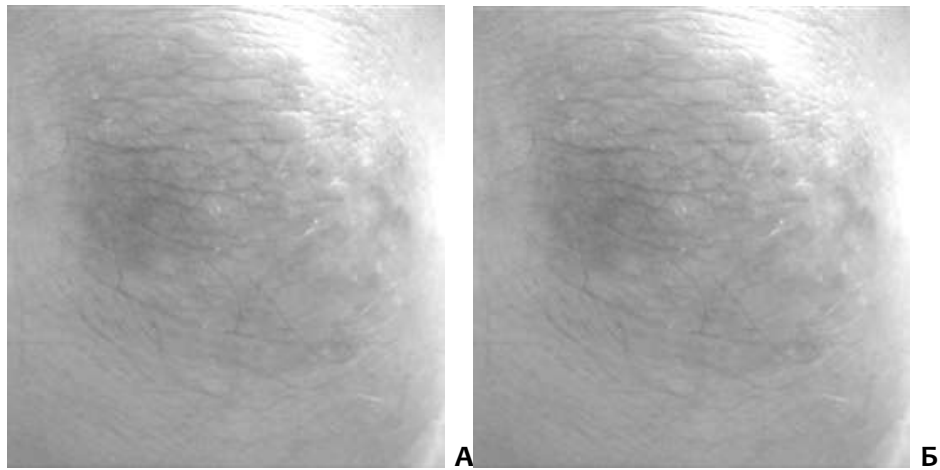


Figure 9. Skin condition before (A) and after (B) carboxytherapy in scleroderma

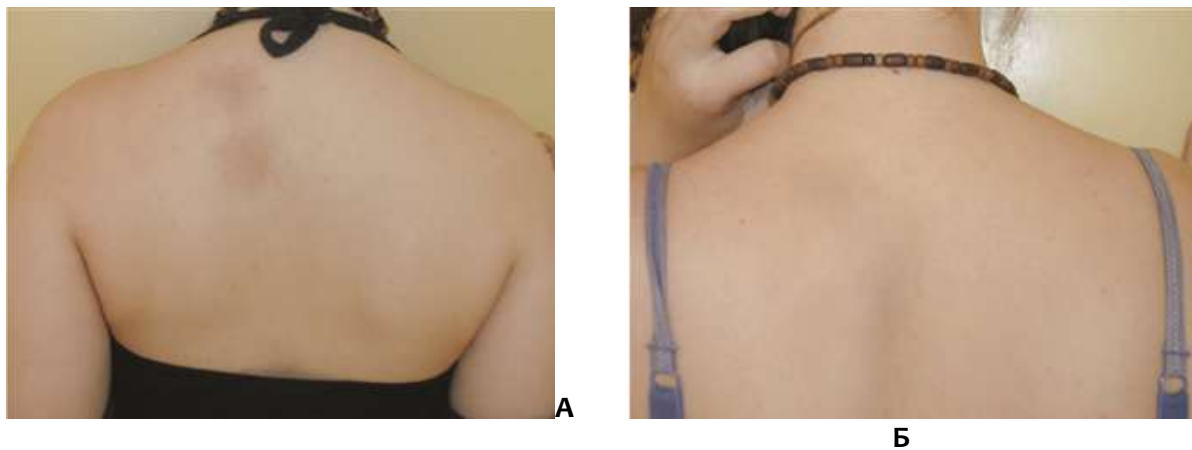


Figure 10. Edema after the introduction of CO₂ into the upper and lower eyelids



Figure 11. Technique of introducing CO₂ into the upper and lower eyelids



Figure 12. Carboxytherapy technique in the forehead



Figure 13. CO₂ nasolabial triangle injections technique



Figure 14. Positive effect of CO₂ injections into the nasolabial triangle



Figure 15. Under eye dark circles treatment lines

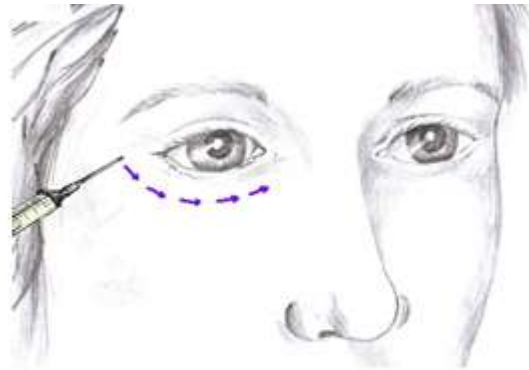


Figure 16. Under eye dark circles treatment line

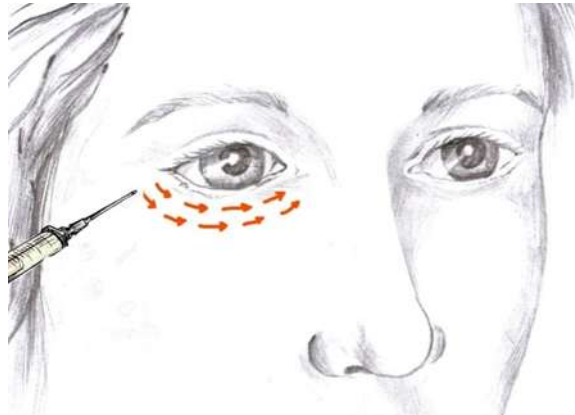


Figure 17. Neck treatment technique

Figure 18. Double chin treatment technique

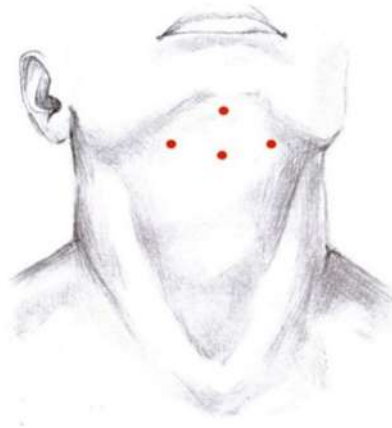


Figure 19. Injection technique for the sagging underarm skin treatment

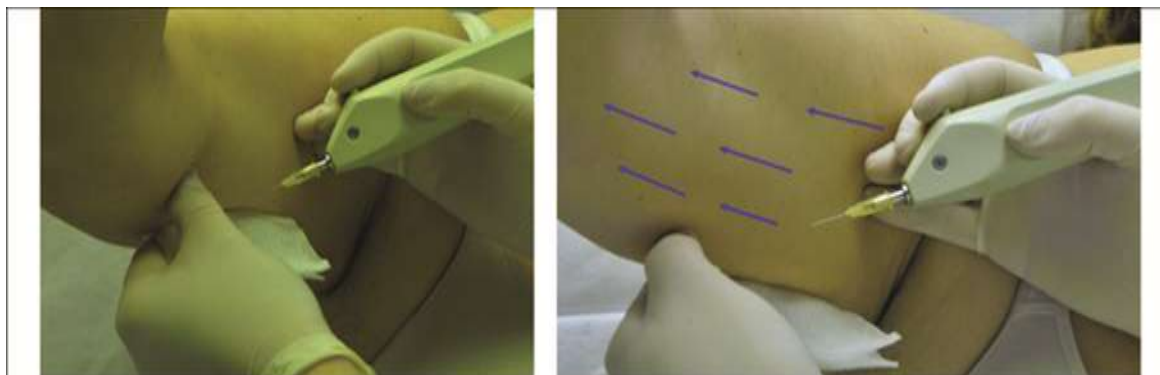


Figure 20. Points of CO₂ injections during treatment of the back side of hands

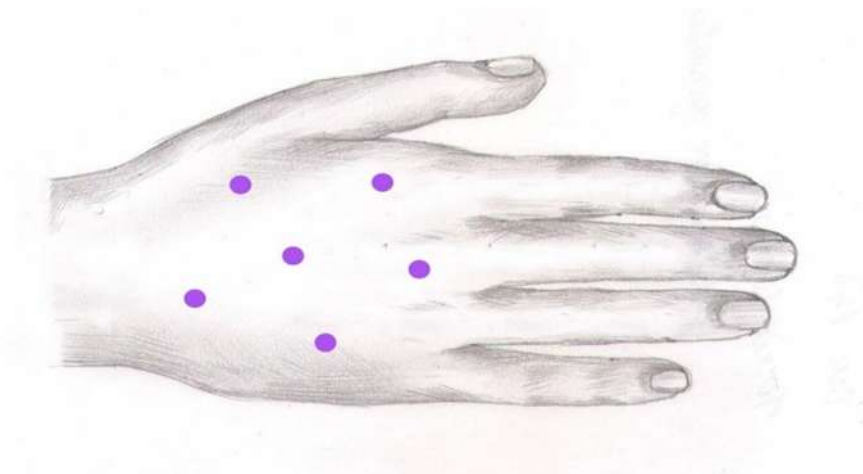


Figure 21. Zones separation during cellulite treatment

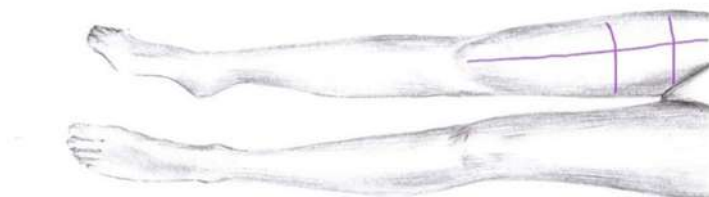


Figure 22. Risk points for the use of carboxytherapy on the thigh: 1 - crossing of large vessels, 2 - Gunther perforant in the middle of the thigh, 3 - Dodd perforant, 4 - Boyd perforant

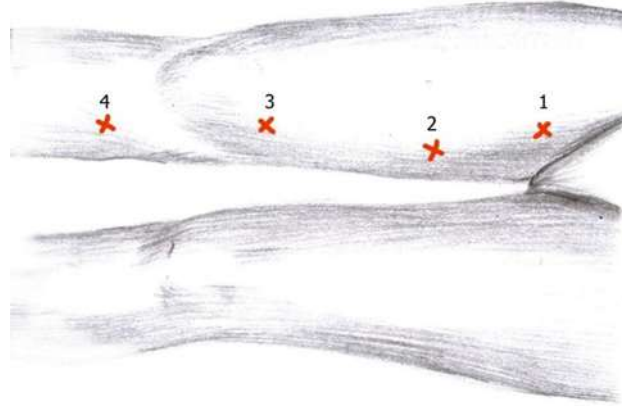


Figure 23. Application of carboxytherapy on fresh scars



Figure 24. Abdominal visceral fat treatment



Figure 25. Striae and stretch treatment technique

