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Correction programs for striae rubrae: how to get a quick effect. Pilot study.

Introductoin:

- ▶ The cause of the appearance of striae are various factors: pregnancy, breastfeeding, taking glucocorticosteroids, a sharp set of weight, height or muscle mass, the presence of endocrinological pathology (Cushing's syndrome), genetic defects of collagen.
- ▶ A striae rubrae has specific histological changes: edema, melanogenesis enhancement, vascular ectasia and angiogenesis, changes in the structure of collagen fibers, reduction and reorganization of elastic fibers, reduction of fibrillin, increase in amount of glycosaminoglycans.
- ▶ Correction of striae should be aimed to affect the synthesis of collagen, cellular proliferation, to make an anti-inflammatory effect and improve microcirculation.
- ▶ We use a preparation containing high molecular hyaluronic acid (11 mg/ml) and succinic acid (16 mg/ml).
- ▶ Succinic acid normalized microcirculation and cellular energy exchanges, prevents damage of the cell genome.
- ▶ High molecular hyaluronic acid is an anti-inflammatory agent, it reduces the level of proinflammatory cytokines, leucocyte infiltration and tissue edema and the permeability of the vascular wall. It participates in tissue repair and affects the proliferation of the skin.

Materials & Methods:

Correction of striae rubrae was carried out to patients with a severity of striae from 8 to 12 points on the Atwal scale.

For correction we used preparation, contained hyaluronic acid (11 mg/ml) and succinic acid (16 mg/ml) (Xela Rederm 1.1%) in dose volume 2-4 ml, depending on the area of correction (technique of papular injections, using a 30G needles) in the area of striae and 2 cm of surrounding unaltered skin.

The recommended course included from 3 to 7 procedures (1 every 2 weeks) depending on the severity of the striae.

The evaluation of the results of the procedure was carried out on the basis of changes in the indices of the Atwal Scale, by the in vivo confocal laser scanning microscopy at the beginning of the course and 30 days after the end of the course, also we have compared the photos before and after of the course, on the 30th and 60th day after the end of the course. For the purpose of anesthesia we used Emla.

Results:

After 2 weeks from the beginning of the course, the improvement in the form of blanching of the striae was observed. There was a decrease in the number and size of the striae, blanching of the striae, densification of the skin in the striae areas. Confocal scanning laser microscopy noted an improvement in the structure of the epidermis and derma. Further improvement continued, the Atwal scales decreased.

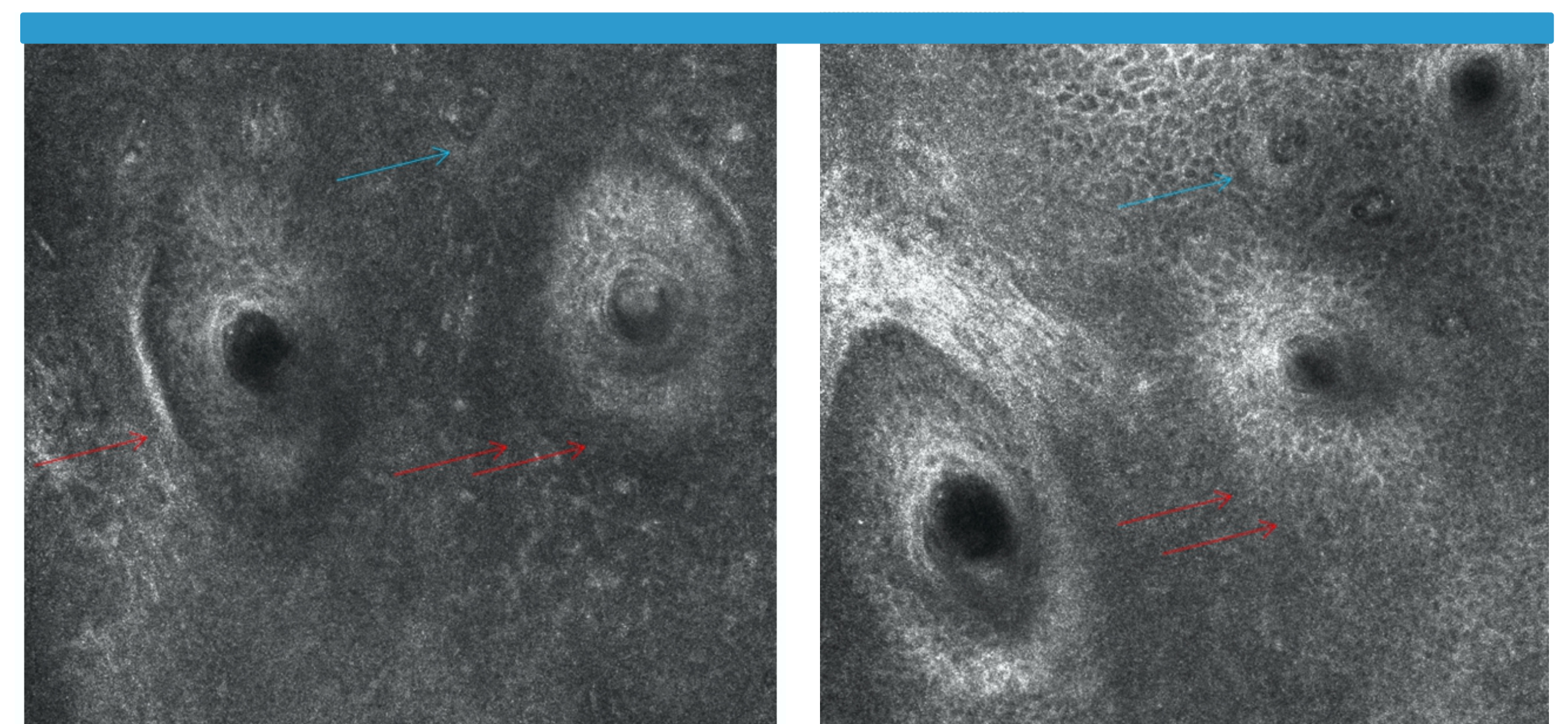
Patient, 19 years old.



*Before the course.
The lateral surface of the left thigh.*

*After the 4th procedurs.
The lateral surface of the left thigh.*

Confocal scanning laser microscopy



Before the course.

After the course.

Before treatment noted the main signs of inflammation: infiltration around and between the follicles (red arrows), dilated derma vessels (blue arrows). In the image after treatment, there are no infiltration, vessels has normal size.

Conclusions:

The protocol of use the preparation, contained hyaluronic acid (11 mg/ml) and succinic acid (16 mg/ml) can be effectively used for correction of striae rubrae in patients with Atwal scores on 8 to 12 points. The in vivo confocal laser scanning microscopy can be an effective method for the control of the therapy of the striae rubrae.



Correction programs for the perioral zone: how to reduce the risk of complications and get an effect. Pilot study.

Introductory:

The changes in a perioral region are caused by various factors: hereditary predisposition, anatomical features, facial muscle tone and activity, facial skull structure and dentoalveolar system, and do not directly depend on the age of the patient. In the skin there are processes of chronic inflammation (inflammaging), changes of microcirculation, disorganization of collagen and elastin fibers, decrease of the amount of hyaluronic acid. Correcting this area, sometimes we have complications such as contouring of the filler at the site of injections, tissue ischemia, insufficient density and elasticity of tissues at the site of planned manipulations, and the absence of the expected effect. Correction of the perioral area should be aimed to minimizing side effects and improving the structure and quality of the skin.

We use a preparation containing high molecular hyaluronic acid (22 mg/ml) and succinic acid (16 mg/ml).

High molecular hyaluronic acid:

- Reduces the level of proinflammatory cytokines.
- Reduced leucocyte infiltration and tissue edema.
- Removes dehydration of the skin.
- Provides mechanical support of tissues.

Succinic acid:

- Normalizes microcirculation,
- Normalizes cellular energy exchanges.
- Has antioxidant properties.
- Prevents damage of the cell genome and.

Materials & Methods:

Correction of the perioral area was carried out for patients with age-related changes of 2-3 degrees according to the Glogau scale and the degree of nasolabial folds expression from minor to expressed in the WSRS scale.

For correction we used preparation, contained high molecular hyaluronic acid (22 mg/ml) and succinic acid (16 mg/ml) (Xela Rederm 2.2%) in dose 2 ml (technique of linear injections, using a 30G needles).

The recommended course included from 2 to 4 procedures (1 every 2 weeks) depending on the degree of expression of age-related changes.

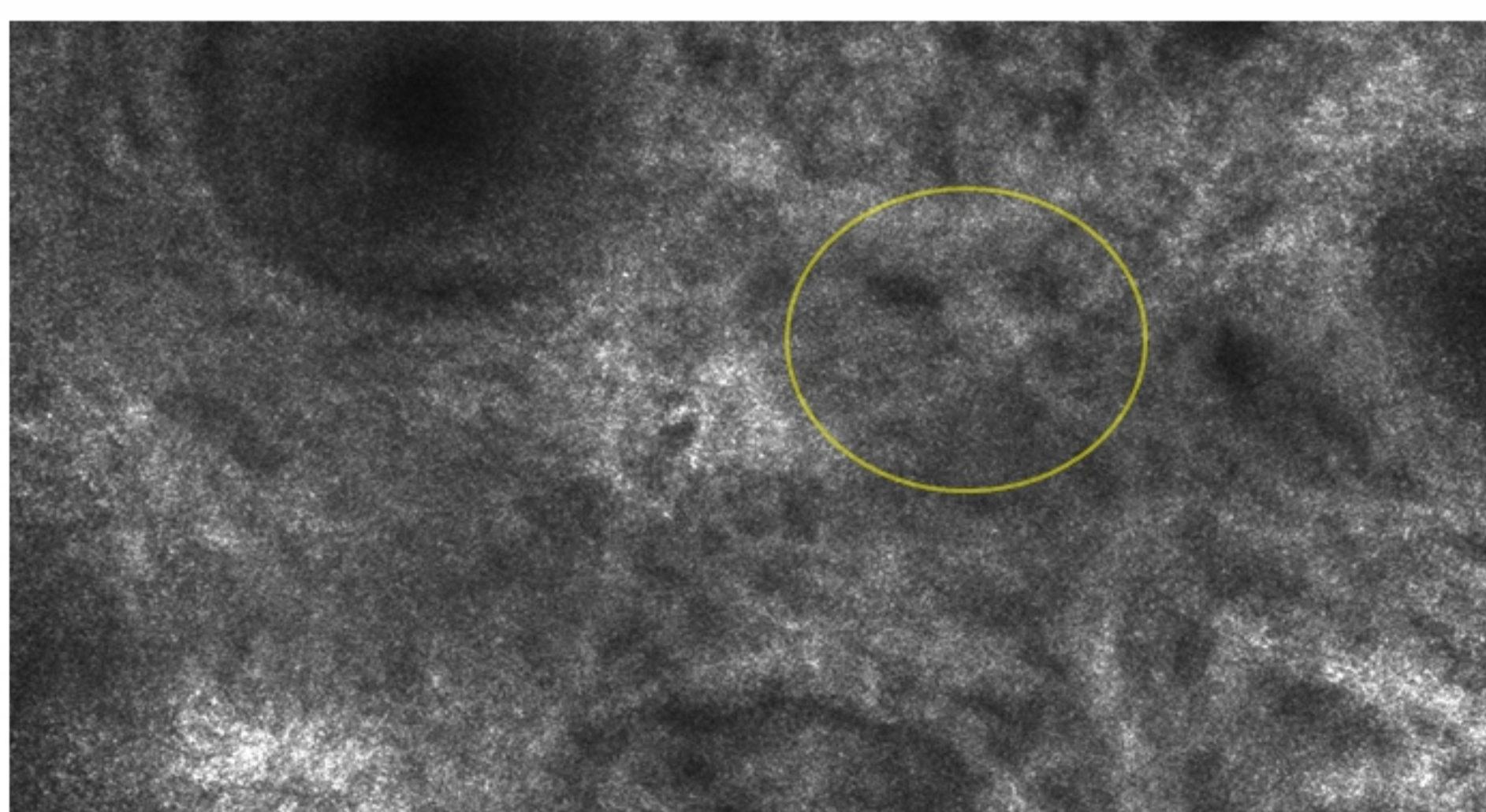
The evaluation of the results of the procedure was carried out on the basis of changes in the Wrinkle Severity Rating Scale (WSRS), the International Global Aesthetic Improvement Scale (GAIS), by the in vivo confocal laser scanning microscopy at the beginning of the course and 30 days after the end of the course, also we have compared the photos before and after of the course, on the 30th and 60th day after the end of the course. For the purpose of anesthesia we used Emla.

Results:

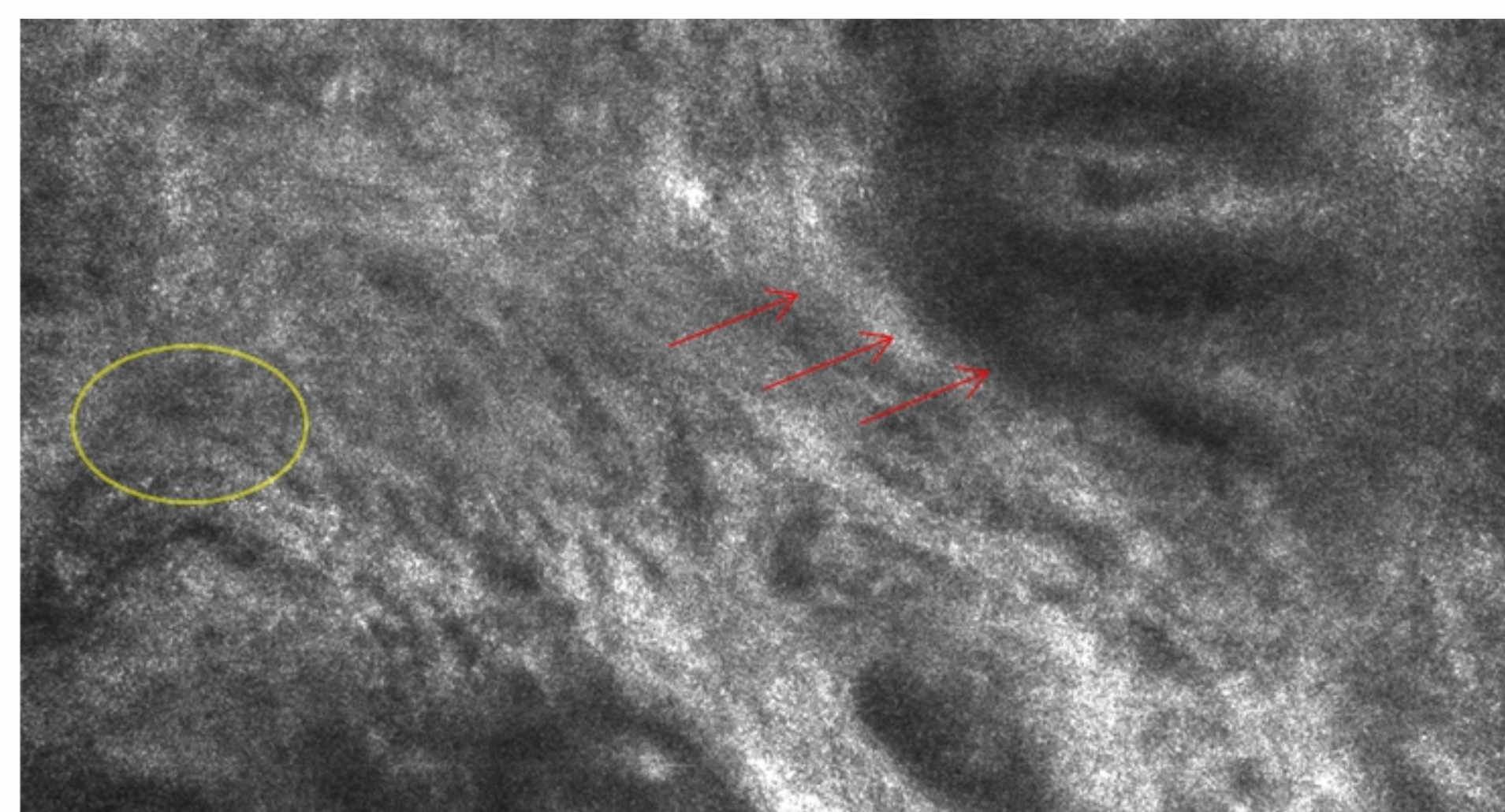
On the 30th day from the beginning of the course the improvement of the WSRS indicators was observed. There were the improvement of skin turgor and elasticity, densification of the skin, reduction some wrinkles, improvement of the contour and structure of the red border of the lips on the 30th and 60th days after the end of the course.

Confocal scanning laser microscopy noted the improvement in the derma, a decrease in the relative density of fiber disorganization, an increase in the total number of connective tissue fibers, and a more regular arrangement.

Confocal scanning laser microscopy



Before the course.



After the course.

There are an improvement in the derma, decrease of disorganization sites (shown in the yellow circle) (dark areas), an increase in the total number of connective tissue fibers, and their more regular arrangement (red arrows) after the course.

Conclusions:

The protocol of use the preparation, contained hyaluronic acid (22 mg/ml) and succinic acid (16 mg/ml) can be effectively used for correction for correction of the perioral zone in patients with age changes of 2-3 degrees on the Glogau scale as monoprocedure or in combined protocols of correction.