Институт
пластической хирургии
и косметологии

Modern methods of correction of scars

Stenko A.

Institute of Plastic surgery and cosmetology

Moscow

IPS&C
ИНСТИТУТ
ПЛАСТИЧЕСКОЙ ХИРУРГИИ
И КОСМЕТОЛОГИИ МЗ РФ

- **Study of effectiveness of placenta preparation Laennek (Japan Bioproducts Industry Co., Ltd., Japan) in complex treatment of the scars 6/22/13/Treaty No. 06-13**

1

LAENNEK-HUMAN PLACENTA HYDROLYSATE INJECTION DRUG

The first placental preparation for intravenous injection, registered on the territory of the Russian Federation registration number p # 013851/01

- Produced with the highest technology
- Sterile, active, safe
- Tested for toxicity and the absence of viruses
- Only placental product for intravenous injection
- In 2-ml ampules contained 112 mg of human placenta hydrolysate

Electrode farmaphoresys

Hardware system
FARMA T E B

Design of study 28 patients with post-acne scars

- 5 intravenous infusions of Laennek
- a one-time irrigation of wound surface after dermabrasion or fractional photothermolysis
- farmaphoresys with Laennek (1 amp. 1 times per week - 5 procedures)

The results

83% of patients observed:

- shortening of the terms of rehabilitation,
- acceleration of epithelization,
- improvement of microcirculation,
- leveling of the surface of the scar

Main effects:

- Anesthetic
- Vasoactive and trophic
- Anti-inflammatory
- Neurotrophic
- Muscle toning
- Antibacterial (by introducing antibacterial agent)
- Activation of metabolic processes

HARDWARE SYSTEM FARMAT.E.B.

ФЕДЕРАЛЬНАЯ СЛУЖБА ПО НАДЗОРУ В СФЕРЕ ЗДРАВООХРАНЕНИЯ

FEDERAL SERVICE OF HEALTH CARE

РЕГИСТРАЦИОННОЕ УДОСТОВЕРЕНИЕ

REGISTRATION CERTIFICATE

№ ФСЗ 2012/12945

от **25 сентября 2012 года** Срок действия: **не ограничен.**

Настоящее удостоверение выдано
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и подтверждает, что изделие медицинского назначения
(изделие медицинской техники)
Аппарат медицинский для трансдермального введения лекарственных веществ "Farma T.E.B. Trans Epidermal Barrier Physio", модель FTE1/P-D с принадлежностями (см. Приложение на 1 листе)
производства
«Ад Биомедикал Иннотек С.р.л», Италия,
Ad Biomedical Innotech S.r.l via Modena S. Sperato, II traversa, 48, 89133 Reggio Calabria (RC), Italia
класс потенциального риска **2а** ОКП **94 4400**

соответствующее комплекту регистрационной документации

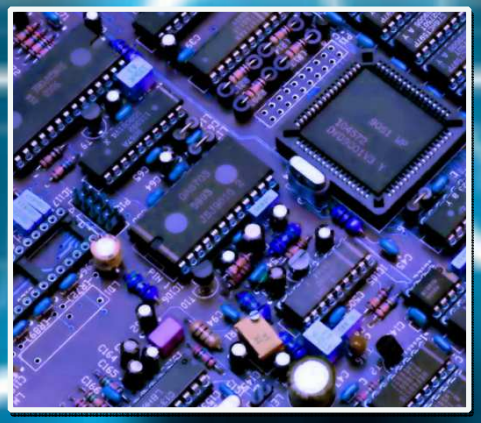
КРД №24534 от 18.07.2012
приказом Росздравнадзора **от 25 сентября 2012 года №1573-Пр/12**

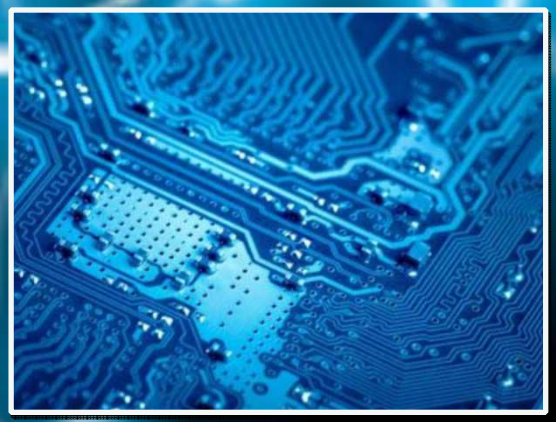
разрешено к импорту, продаже и применению на территории Российской Федерации

Врио руководителя Федеральной службы по надзору в сфере здравоохранения **Д.В.Пархоменко**

Hardware system

Hardware system consists of 3 high-speed processors. During the procedure system of auto-diagnostic monitors integumentary tissue characteristics (impedance, resistance, electrical conductivity, availability and value charges) located between the electrodes and based on the real time data collected by the unique shape of the signal individually for each patient. During the procedure of hardware constantly tests the condition of the tissues, thus excluding the possibility of cell damage.

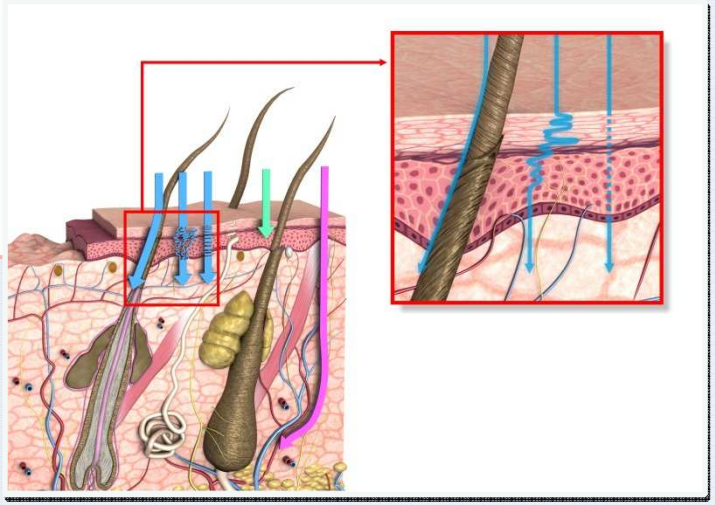




Electrode farmaphoresys

Electrode farmaphoresys –
innovative variety of medical electrophoresis

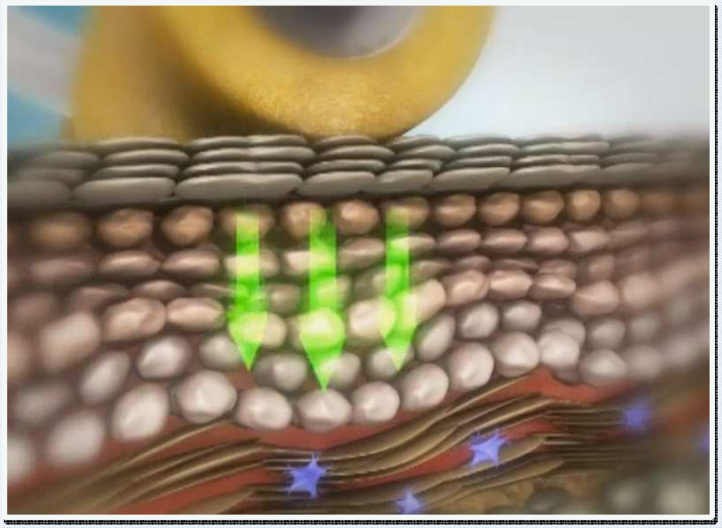
Method of combined exposure to the body electric current complex structure and medical substances entered using it at a depth of up to 12 cm in thickness of tissues with electric impuls 89% , by 3% èlectroosmosis and diffusion 8%.



Mechanism

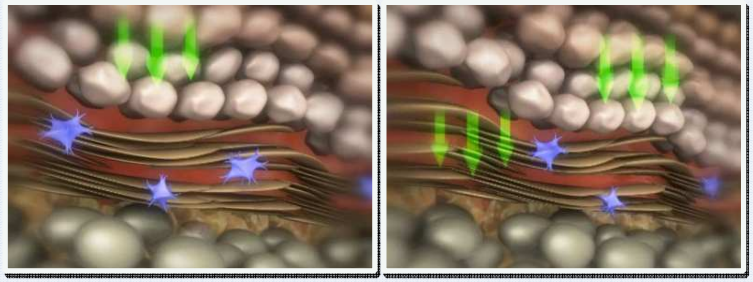
effect of electric current

medicinal substance



Advantages:

- **The availability of special programs for different pathological skin conditions**
- **Application solutions of medicinal substances in the lesser of the quantity and concentration**
- **Minimal impact on the endocrine system**
- **The absence of systemic and local side effects**
- **Technical ease and comfort for the patient**



Before the procedure

After one procedure of fractional photothermolysis and irrigation of the wound surface with Laennek

After 5 procedures of electrode farmaphoresys with Laennek

Atrophic scar deformity of the right buccal area

Before the procedure

After one procedure of fractional photothermolysis and 5 procedures of electrode farmaphoresys with Laennek

Hypertrophic Scar deformity of left shoulder after removing tatu

Before treatment

After the procedure fractional photothermolysis

After 5 procedures of electrode farmaphoresys with Laennek

After 2 months

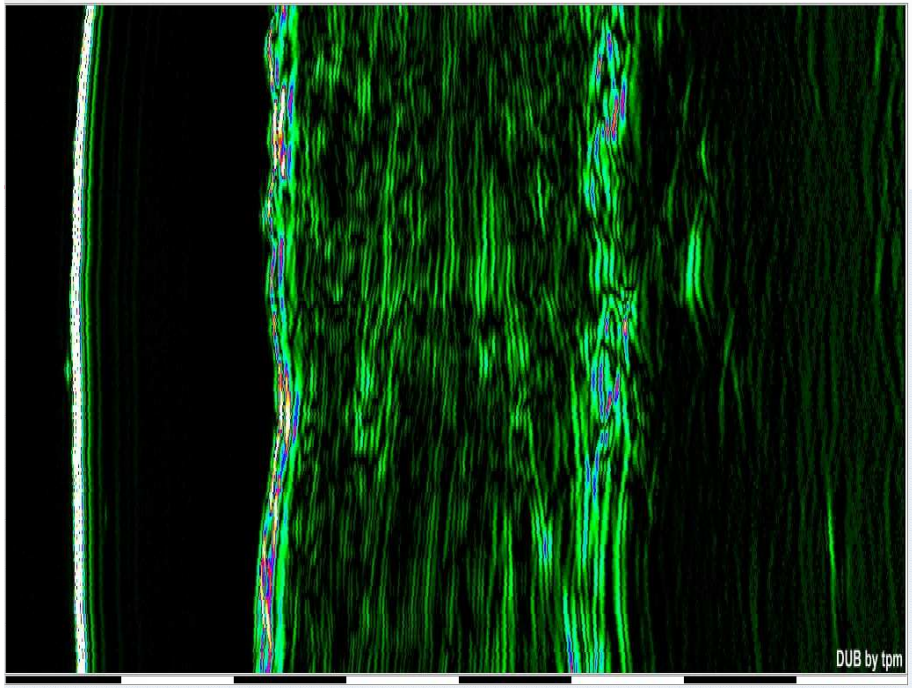
Atrophic scar deformity of the skin of the left shoulder

Before treatment

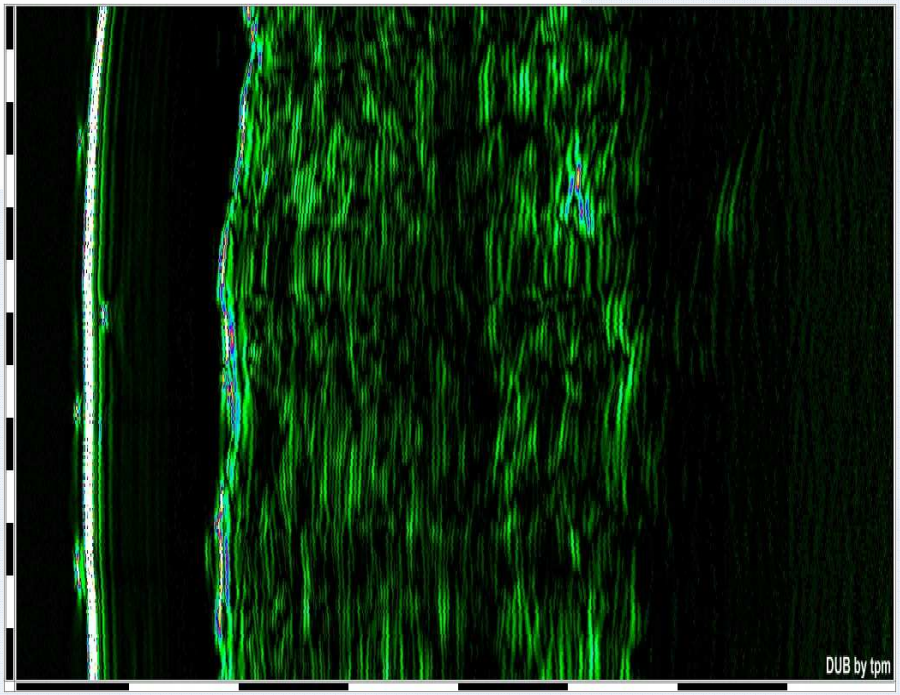
After one procedure of fractional photothermolysis
and 5 procedures of electrode farmaphoresys with Laennek

Ultrasound research

Before the treatment



After treatment

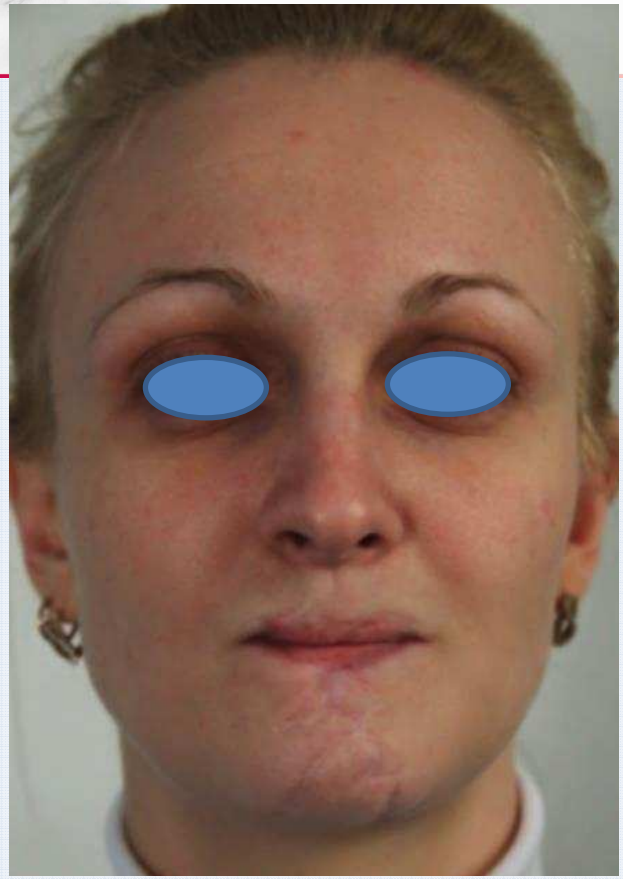


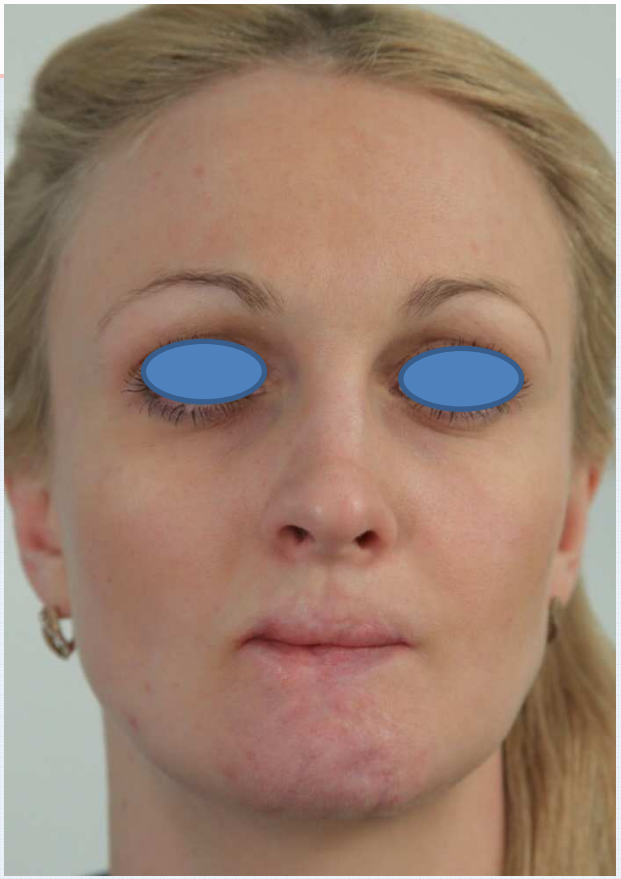
Distribution of signals in the derma layers on differentiation, even absent. There was increased echogenicity of the derma (the connective tissue). In the deep derma layers noted hyperechogenicity.

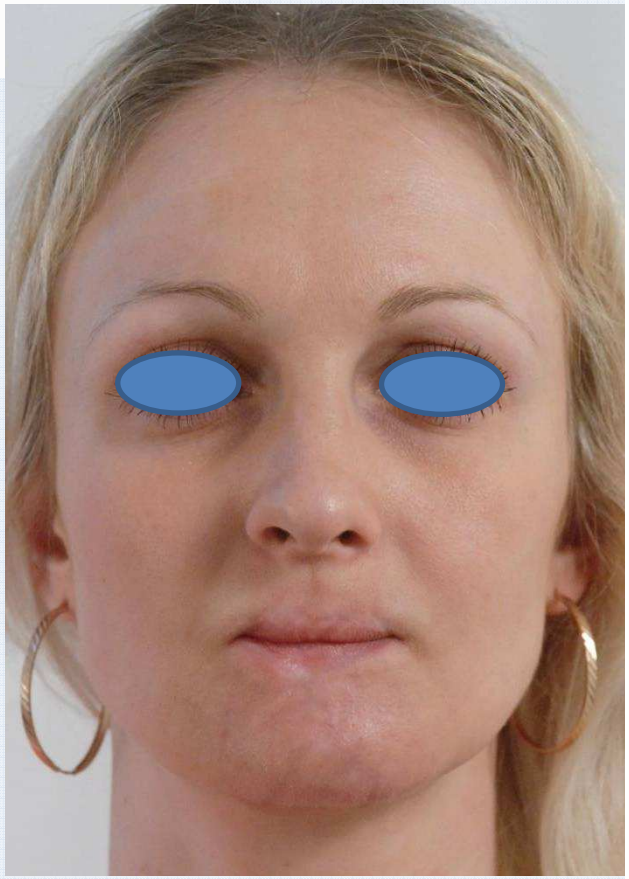
The contour of the surface of the epidermis is unsmooth. A clear demarcation line. Distribution of signals in the derma layers on differentiation is absent. Derma thickness has been increased. Declining making less of echogenicity of the dermis, as well as the absence of hyperechogenicity in the deep derma divisions which suggests partial resorption of scar

Correction of chin deformities atrophic areas with fractional photothermolysis, biorevitalization with nonstabilised Hyaluronic Acid and KIP

Correction of chin deformities atrophic areas with method of fractional photothermolysis, biorevitalization with nonstabilised Hyaluronic Acid







Before the treatment

After 2 prosedures of treatment with fractional photothermolysis and 5 procedures of electrode farmaphoresys with Laennek, biorevitalization

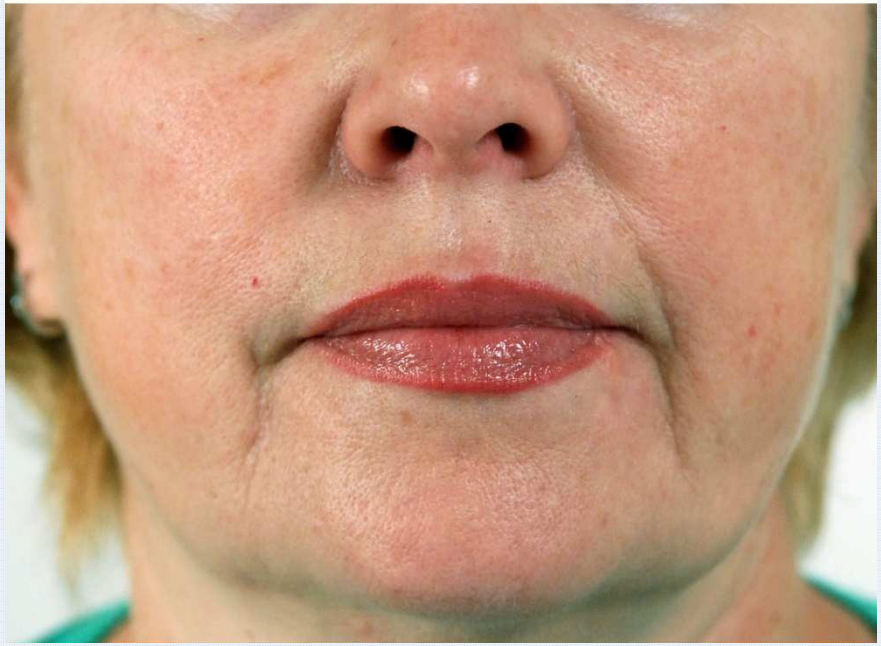
Atrophic scar deformity of the skin of the left buccal area

Before the treatment

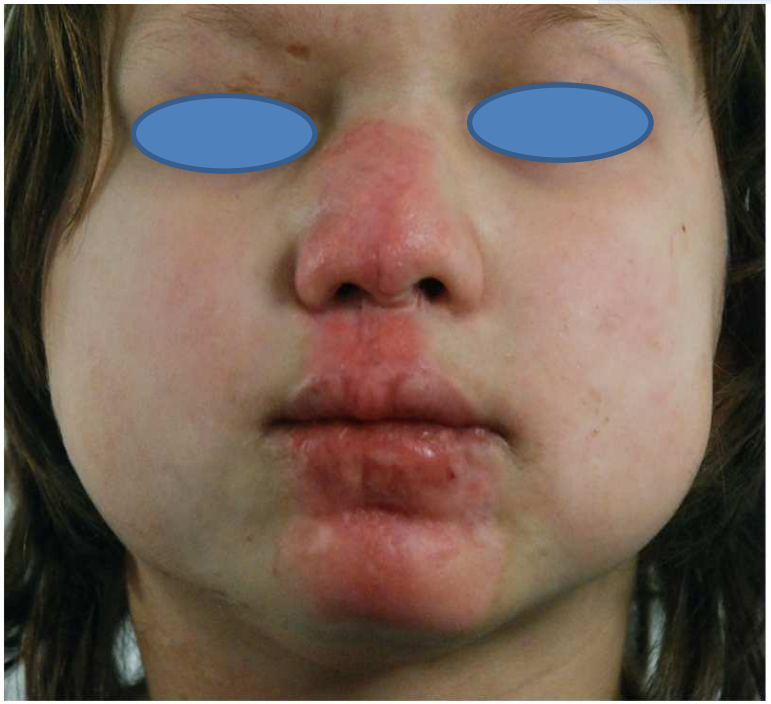
After one procedure of fractional photothermolysis and 5 procedures of electrode farmaphoresys with Laennek

Post-traumatic perioral scars

Before treatment



After one procedure of fractional photothermolysis and 5 procedures of electrode farmaphoresys with Laennek



Before the treatment

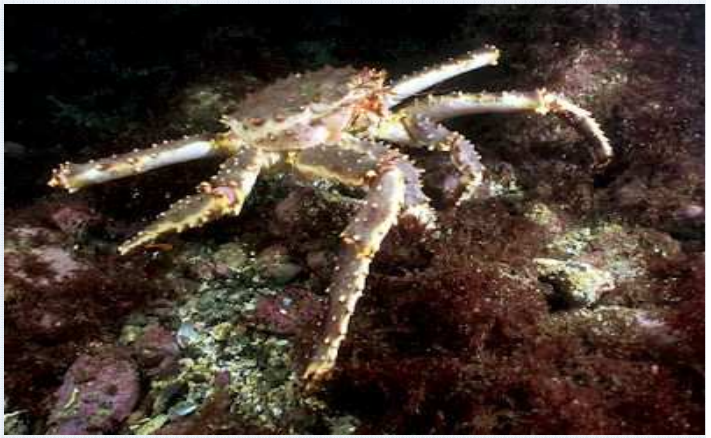
After dermabrasion and 5 procedures of electrode farmaphoresys with Laennek

FERMENKOL ® - enzyme preparation from hydrobionts possessing pronounced antiscars effect

2

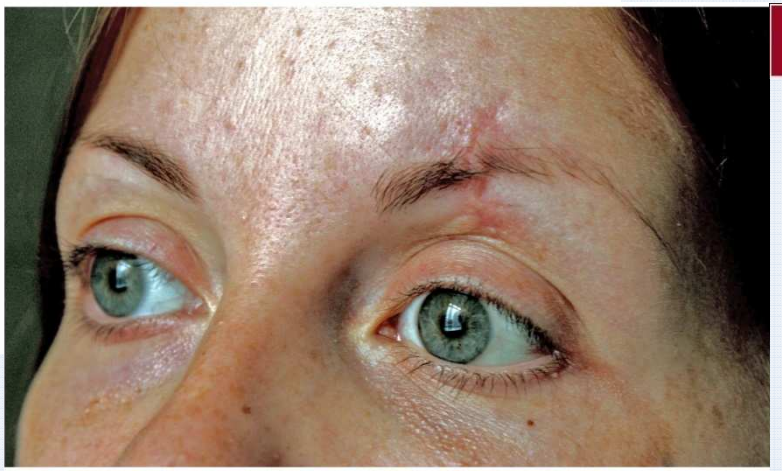
FERMENKOL ®
enzymatic correction Kit

FERMENKOL ® gel



- Inhibition of proliferative activity of fibroblasts
- The destruction of excess extracellular matrix - collagen and hyaluronic acid

ФЕРМЕНКОЛ®



ФЕРМЕНКОЛ®

Posttraumatic skin scars

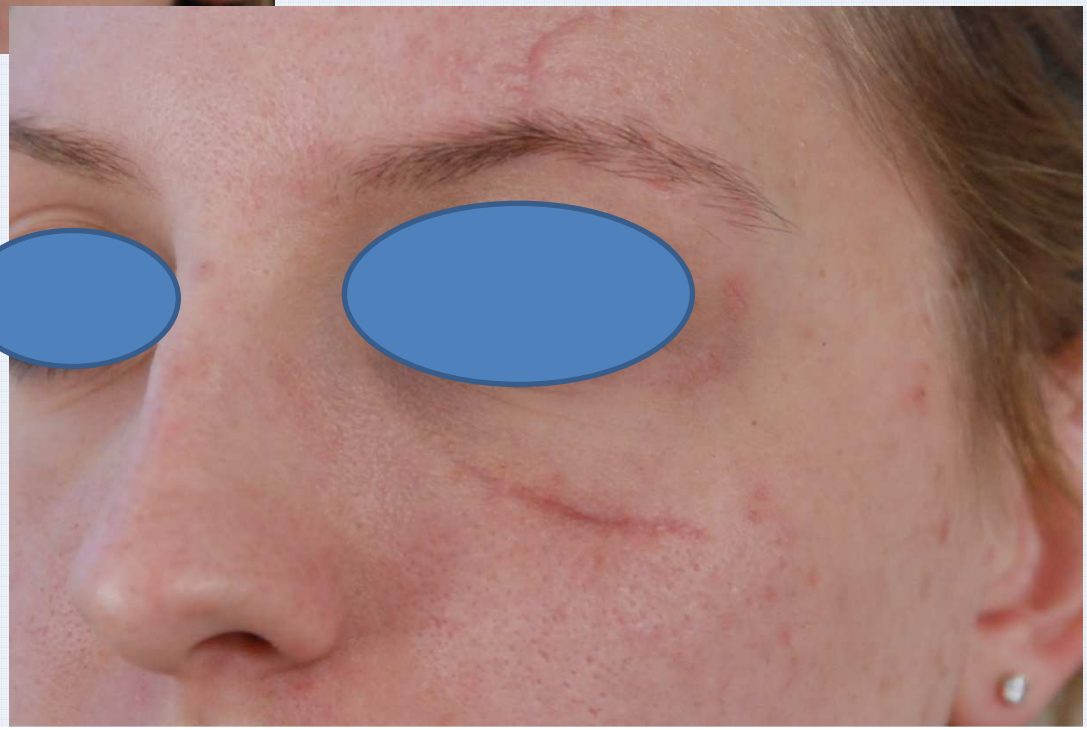
Before the treatment

After 5procedures of electrode farmaphoresys with Fermenkol

Posttraumatic scars of left periorbital skin

Before the treatment

After 5procedures of electrode farmaphoresys with Fermenkol



Post-burn scar deformity of the skin

ФЕРМЕНКОЛ®

Before the treatment

After 10 procedures of electrode farmaphoresys with Fermenkol

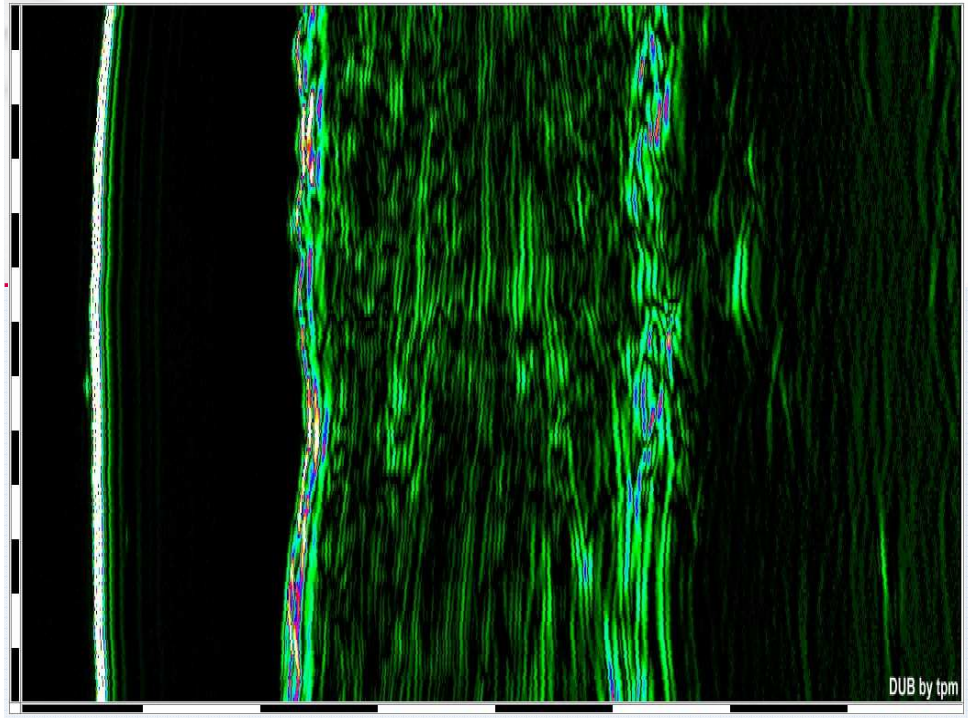
6 months after treatment

ФЕРМЕНКОЛ®

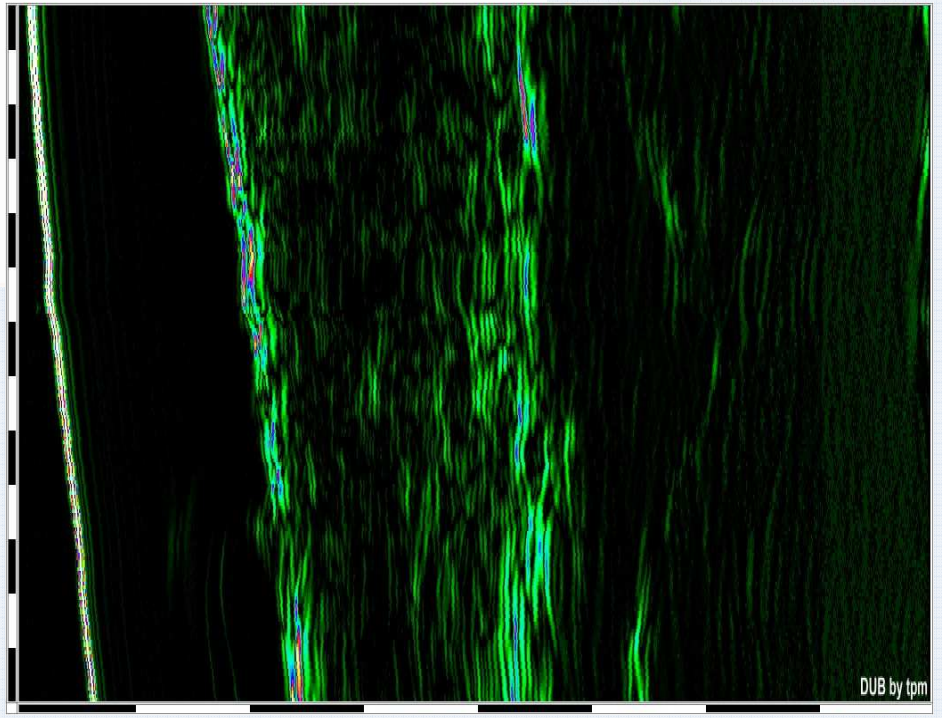
Postburn scar deformity of the skin of the chest

Before the treatment

After 10 procedures of electrode farmaphoresys with Fermenkol

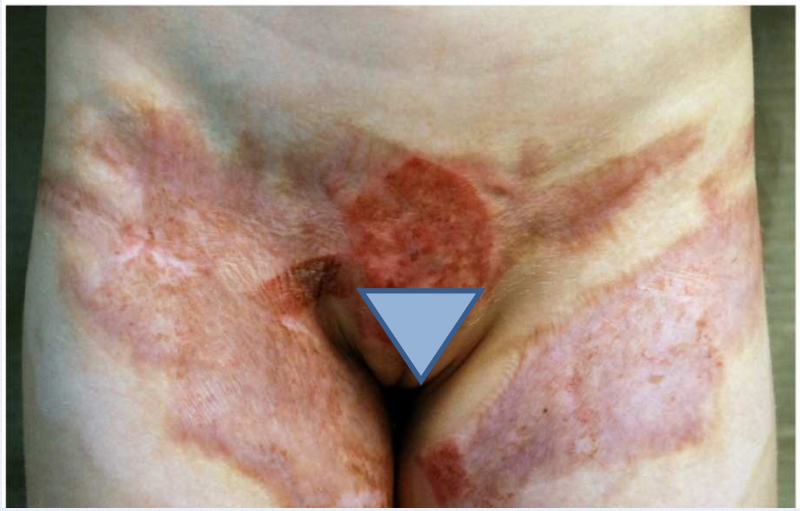


The contour of the surface of the epidermis is smooth. Separating of the layers is clear. Distribution of signals in the dermal layers on differentiation is absent. A significant increase in derma echogenicity in the deep divisions



The contour of the surface of the epidermis is unsmooth. Separating layers are clear. Distribution of signals in the dermal layers on differentiation, is absent. Declining the acoustic density of derma, hyperechogenicity in the deep derma divisions became less pronounced, sometimes completely missing (resorption of the scar).

Emerging keloid deformation of pubis, anterior and inner surface of the upper third of the right and left thighs of patient 7 years old



Before the treatment

After 10 procedures of electrode farmaforeza with Fermenkol

Emerging keloid deformation pubis, anterior and inner surface of the upper third of the right and left thighs of patient 7 years old

After 10 procedures of electrode farmaphoresys with Fermenkol

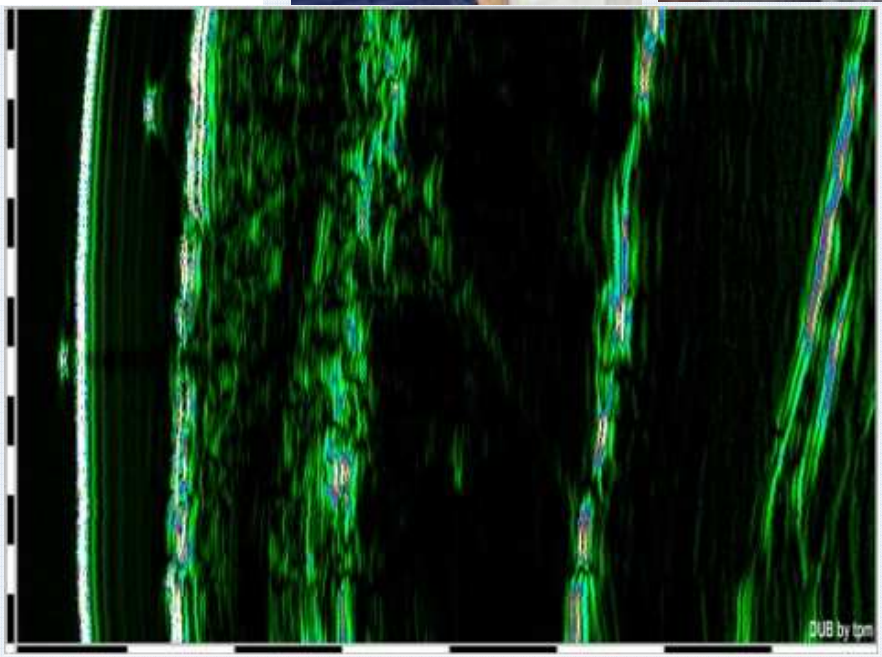


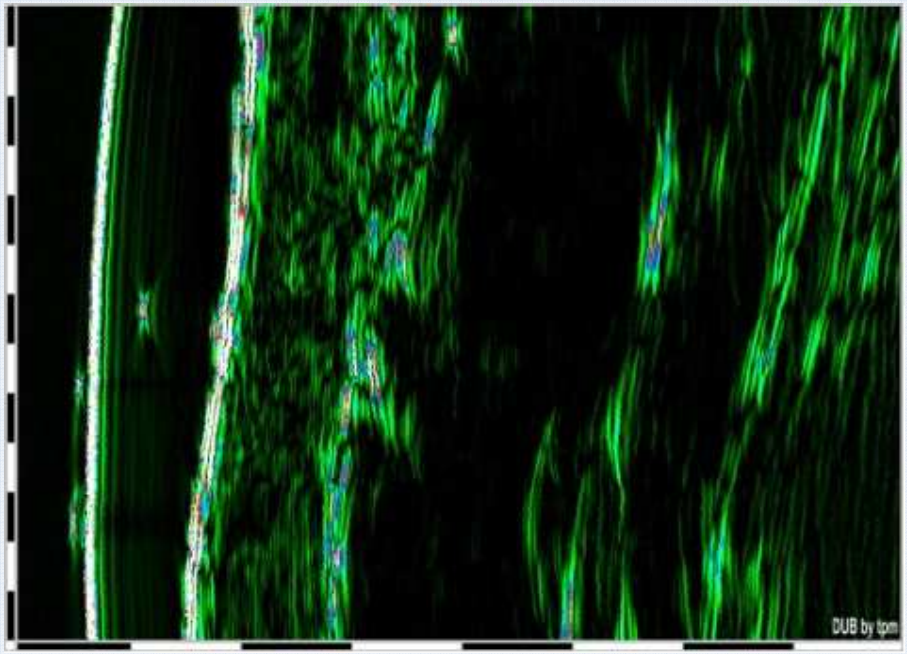


- Ultrasound scanning was performed using Ultrasound Imaging System Digital Skinscanner DUB (Tabernapromedicum GmbH Germany) linear sensor (applicators) 22 MHz with a depth of 10 mm scan.
- 22 MHz frequency allowed to visualize: epidermis, dermis, subcutaneous fatty tissue, muscle fascia, hair follicles, blood vessels of the skin.
- Measurement of the acoustic density of derma supervised the field location of the scar, as a control measure acoustic density of derma on healthy controlateral skin area, and also measured the acoustic density of derma in scar area directly after exposure method of farmaphoresys and after completion of treatment.







Before the treatment

After 10 procedures of electrode farmaphoresys with Fermenkol

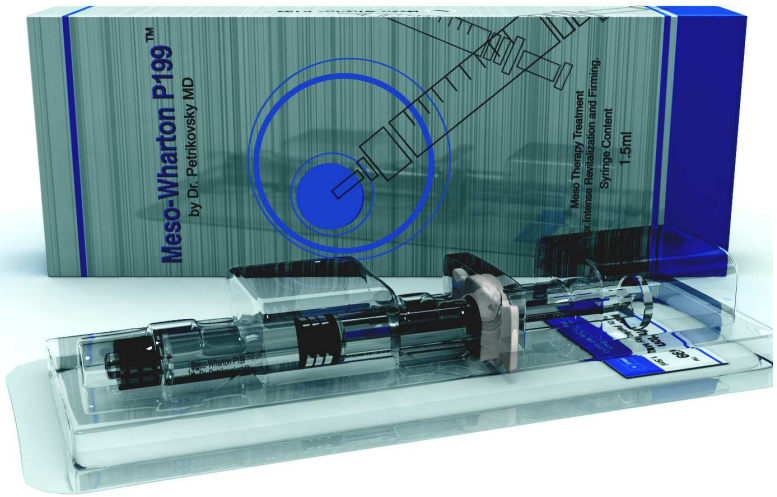
When ultrasonography increased average acoustic density and medium thickness of derma due to increased synthesis of fibrous components of intercellular matrix.

STUDY OF THE CLINICAL EFFICACY OF APPLICATION OF MESO-WHARTONP199 ™ IN PATIENTS WITH SKIN INJURIES

3

- **Polypeptide (P199) "Wharton Jelly Peptide 199" when interacting with skin cells activates the synthesis of biologically active molecules cascade needed to activate cell proliferation in skin cord stem cells.**

- **Increases the synthetic activity of fibroblasts, contributing to the formation of new collagen.**



Featured how to introduction

- Technique of multiple microinjections: on the face the needle is inserted at an angle of 45°to the surface of the skin to a depth of 2-4 mm, with an interval between injections point from 0.8 to 1 cm. Neck needle is inserted at an angle of 30°to the surface of the skin to a depth of 1-2 mm. Direction of cutting of the needle is up.
- In the periorbital area - the technique of "micropapules". To improve the control of a single dose of the medicine, cutting of the needl must be directed upwards. The diameter of the papules must not be more than 1 mm. The total amount of drug in this zone must not be more than 0.2 ml.
- Injections were performed at intervals of 1 time in 7 days in quantity of 5-8 procedures.

Clinical results

27 patients

Postoperative scars 12

Post-traumatic scarring 8

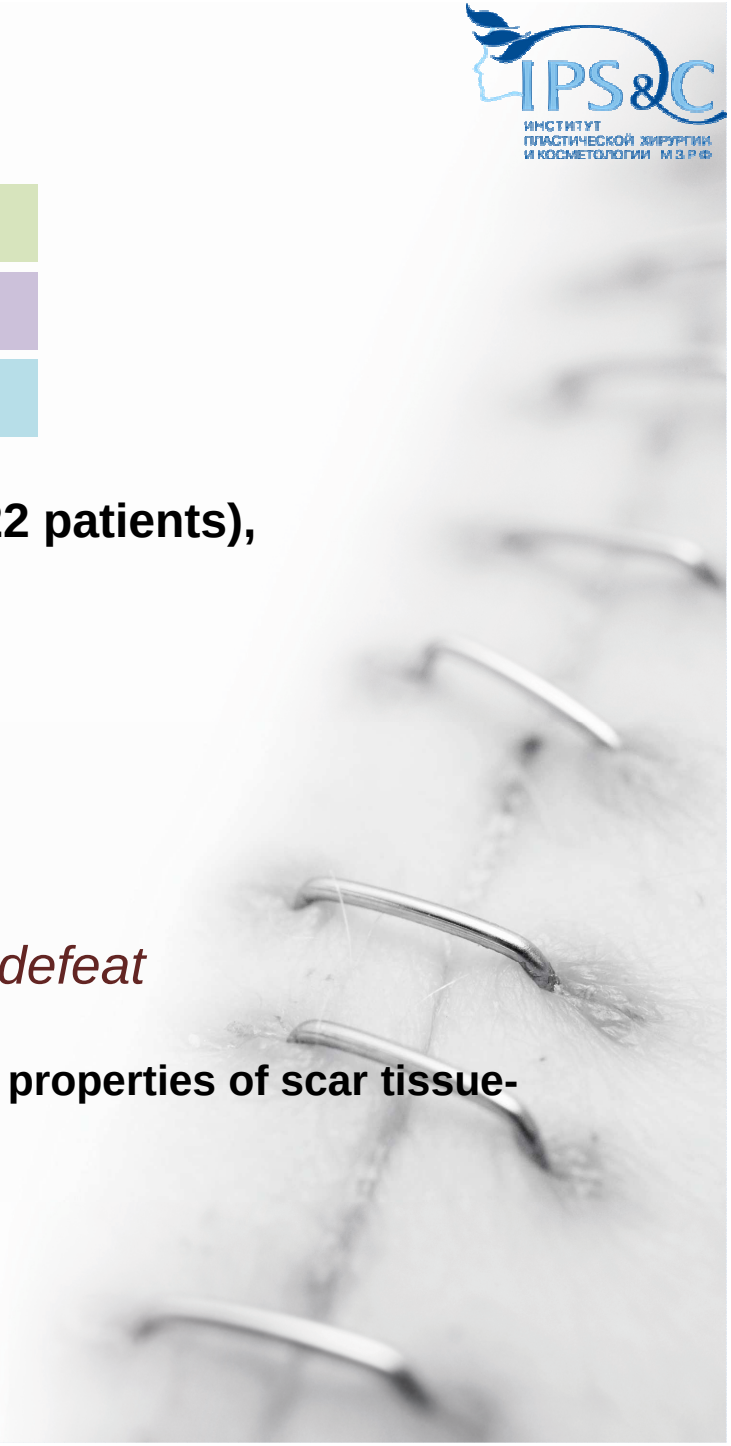
Posterruptivnye scars 7

Good clinical results observed in 81% of cases (22 patients), satisfactory in 19% (5 patients).

81% of patients observed:

- *shortening rehabilitation*
- *accelerate of epithelization,*
- *improving of microcirculation,*
- *the alignment of a relief of a surface of scars defeat*

All study participants noted improvement of qualitative properties of scar tissue-elasticity, turgor, color.



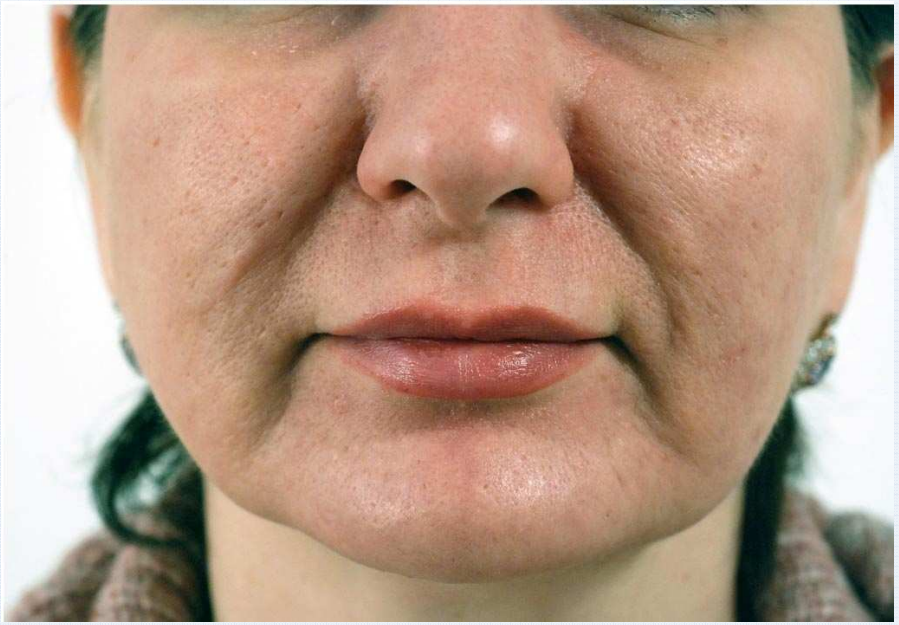
Atrophic skin scars

Before the treatment

After procedure 1 fractional photothermolysis and
5 procedures of electrode farmaphoresis with Laennek

over 2 months

Atrophic skin scars



Before the treatment

2 months after fractional photothermolysis and 5 injections of the drug Meso-Wharton P199 ™

Postèrruptivnye skin scars

Before the treatment

1 month after fractional photothermolysis and injection with Meso-Wharton P199 ™ (3)

Post-traumatic atrophic scar left temporo-zygomatic region

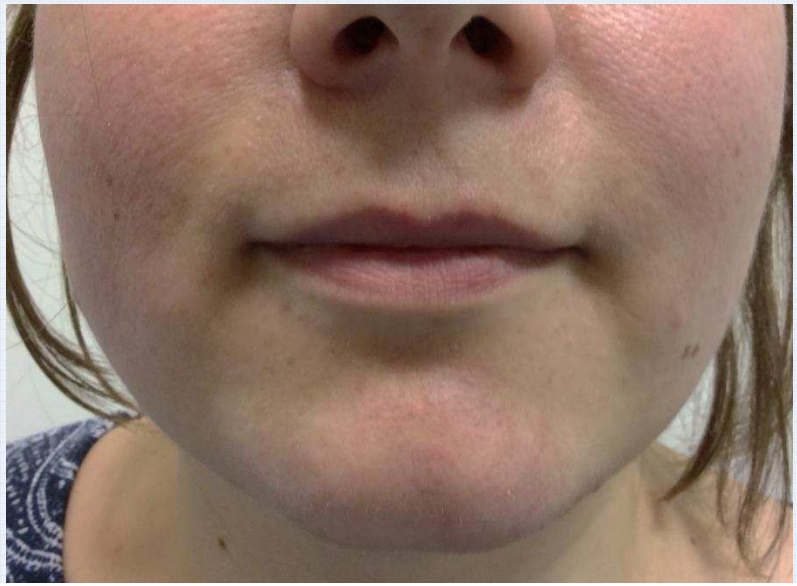
Before the treatment

After procedure 1 fractional photothermolysis,
3 injection with Meso-Wharton P199 ™

Post-traumatic normotroficeskij scar of chin area

Before the treatment

After procedure 1 fractional photothermolysis and injection with Meso-Wharton P199 ™ (5)

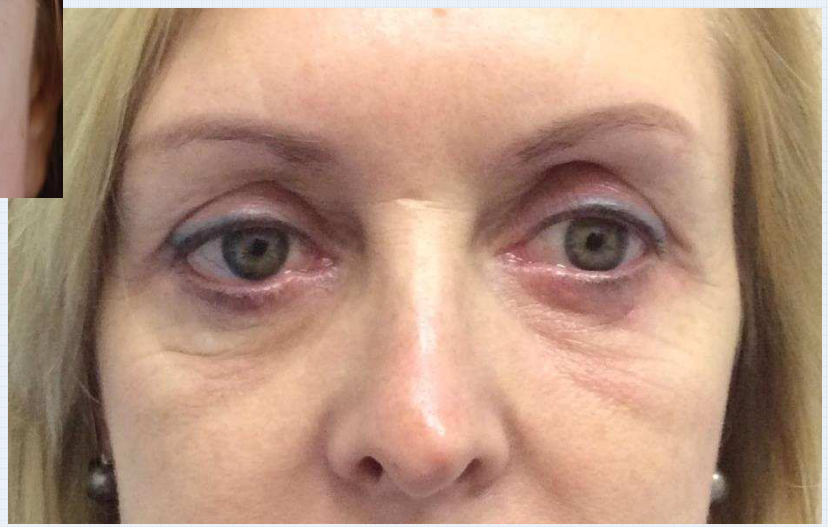


After treatment

Emerging atrophic scar skin changes lower eyelids after aesthetic blepharoplasty

Before the treatment

After 5 procedures injection with Meso-Wharton P199 ™ (5)



Posttraumatic atrophic scar deformity of the skin of the left buccal area

Before the treatment

After one procedure of fractional photothermolysis, and 5 injections of the Meso-Wharton P199 ™


ФЕРМЕНКОЛ
EnTher
ФЕРМЕНКОЛ
НАБОР ДЛЯ ЭНЗИМНОЙ КОРРЕКЦИИ КОСМЕТИЧЕСКОЙ ЛИНИИ EnTher
ФЕРМЕНКОЛ
СРЕДСТВО КОСМЕТИЧЕСКОЕ ФЕРМЕНТНОЕ
СОЛАКТИН
СРЕДСТВО ДЛЯ ПРИГОТОВЛЕНИЯ РАСТВОРА ФЕРМЕНТОВ
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ФЕРМЕНКОЛ
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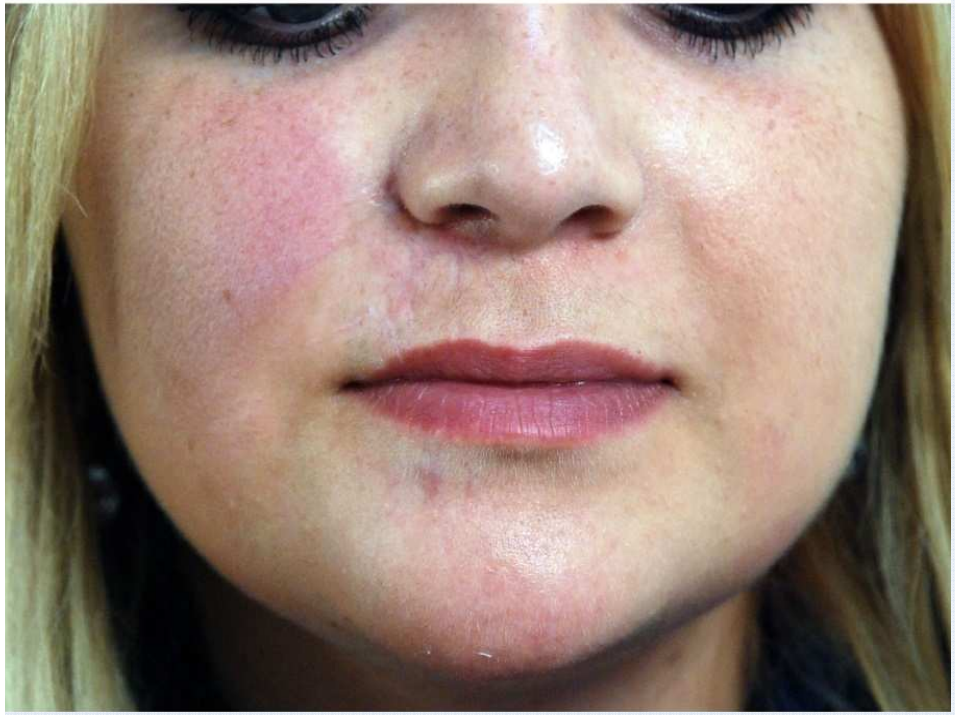


10 ампул по 2 мл
РАСТВОР ДЛЯ ИНЪЕКЦИЙ
ЛАЕННЕК
LAENNEC INJ.
ГИДРОЛИЗАТ ПЛАЦЕНТЫ ЧЕЛОВЕКА
Производитель:


Kelo-cote
Kelo-cote

Thank you for your attention