Table of Contents

Part I. TATTOOS AND PERMANENT MAKEUP. BASIC INFORMATION

Chapter 1. Skin structure and pigmentation peculiarities (Hernandez Jimenez E.I.,

Yutskovskaya Y.A., Visyagina M.A.)

- 1.1. Skin structure
- 1.2. Natural and artificial skin pigmentation
- 1.3. Artificial pigmentation
- Inorganic pigments

Organic pigments

Chapter 2. Tattoos from a medical and biological point of view

- 2.1. Types of tattoos
- 2.2. Techniques of tattooing
- 2.3 Interaction of dye pigment with the skin (Yutskovskaya YA, Visyagina M.A., Rakhanskaya E.M.)
- 2.3.1. Inflammatory phase
- 2.3.2. Proliferation phase
- 2.3.3 Epithelization phase
- 2.4. Tattoos and skin barrier function: distant effects
- 2.5. Contraindications to tattooing
- 2.6. Stages of tattooing / permanent makeup / dermopigmentation
- Step 1. Consultation (medical history)
- Step 2. Drawing a sketch
- Step 3. Choosing the tattoo color
- Stage 4. Anesthesia application
- Stage 5. Tattooing
- 2.7. Peculiarities of anesthesia (Ivanova L.A., Vladimirova D.D.)
- 2.7.1. Preliminary (superficial) anesthesia
- 2.7.2. Secondary anesthesia
- 2.7.3. Features of anesthesia application to different zones of the face

Anesthesia application on the eyebrows

Application of anesthesia on the lips

- Application of anesthesia on the eyelids
- 2.8. Post-treatment care

Chapter 3. Complications of tattooing

- 3.1. Infectious complications
- 3.1.1. Bacterial infections
- 3.1.2. Viral infections
- 3.2. Allergic reactions
- 3.2.1. Spongiotic dermatitis
- 3.2.2. Lichenoid reactions
- 3.2.3. Sarcoid granulomatous reactions
- 3.2.4. Necrobiotic granulomatous reaction
- 3.2.5 Photoinduced reactions
- 3.3. Non-allergic inflammatory reactions
- 3.3.1. Pseudolymphoma

- 3.3.2. Exacerbation of existing dermatoses Koebner's phenomenon
- 3.3.3. Gangrenous pyoderma
- 3.3.4. Needle trauma
- 3.4. Malignant neoplasms
- 3.5. Reactions after magnetic resonance imaging

3.6 Prevention of tattooing complications

Part II. TATTOO AND PERMANENT MAKEUP REMOVAL METHODS

Chapter 1. Mechanical tattoo removal

- 1.1. Dermabrasion
- 1.2. Surgical removal

Chapter 2. Chemical tattoo removal

- 2.1 Chemical peel
- 2.2. Biochemical method (Yutskovskaya Y.A., Visyagina M.A.)
- 2.3. Other methods
- 2.3.1. Cryoablation
- 2.3.2. Electrocoagulation
- 2.3.3. Tattoo removal creams

Chapter 3. Laser tattoo removal (Kalashnikova N.G., Hernandez Jimenez E.I., Rakhanskaya E.M.)

- 3.1. Laser parameters
- 3.1.1. Wavelength of radiation generated
- 3.1.2. Laser fluence and power
- 3.1.3. Exposure duration and mode (pulsed or continuous)
- 3.1.4. Light spot and focus energy
- 3.2. Mechanism of action
- 3.3. Q-switched lasers for tattoo removal
- 3.4. Parameters influencing the effectiveness of laser tattoo removal
- 3.4.1. Wavelength
- 3.4.2. Energy density
- 3.4.3. Duration of interprocedural interval
- 3.5. Factors complicating laser tattoo removal
- 3.5.1. Photochemical effect
- 3.5.2. Multilayer overlapped tattoos
- 3.5.3. 3D tattoos
- 3.5.4. Tattoo scarring
- 3.6. Factors affecting laser tattoo removal
- 3.6.1. Insensitivity of tattoo dyes
- 3.6.2. Traumatic tattoos
- 3.6.3. Allergy to tattoo dye
- 3.6.4. No guarantee for the safety of the tattoo dye when it breaks down
- 3.7. Post-treatment care of the tattoo area
- 3.8. Complications of laser tattoo removal
- 3.9. Patient's assessment of the results of laser tattoo removal
- 3.10. How to increase the efficiency of laser tattoos removal
- 3.10.1. Multiple consecutive tattoo treatments in one session

Method R20

R0 method (R20 optimization) with perfluorodecalin

- 3.10.2. Combined protocols of laser with ablative methods
- 3.10.3. Changing the Q-switch pulse mode
- 3.11. Picosecond laser technologies vs. nanosecond laser technologies
- 3.12. Shock-wave therapy to accelerate elimination after laser treatment
- 3.13. Prospective trends in laser tattoo

tattoo of delivery

pigment removal

Chapter 4. Laser permanent make-up removal (Chebotaryova Yu.)

- 4.1. Permanent make-up removal problems
- 4.1.1. Pigment depositing depth
- 4.1.2. Different sizes of particles in the pigment
- 4.1.3. Different colors of pigments from different chemical groups
- 4.1.4. Changing the color of the pigment under the influence of different wavelengths
- 4.2. Laser-assistant removal of permanent make-up: what the aesthetician should know
- 4.3. Contraindications for the removal of permanent make-up
- 4.4. How to evaluate the prospects of treatment?
- 4.5. Intraprocedural intervals

4.6. Clinical examples of successful permanent makeup removal with the Q-switched Nd:YAG laser

4.7. Camouflage

- 4.8. Protective lenses
- **Conclusion remarks**

References