

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ**  
**Харківський національний медичний університет**

# **Medical cosmetology**

## **Module 1**

***Study guidelines***  
***for 4-year medical faculty students trained in English***

# **Медична косметологія**

## **Модуль 1**

***Методичні вказівки для студентів***  
***медичного факультету***  
***4-го року навчання англійською мовою***

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## SUB-MODULE 1.

(Topics 1–4)

**Introduction to cosmetology. Skin as an object of cosmetic intervention.**

**Methods of treatment in medical cosmetology**

**Specific objectives:**

to be able

- interpret the subject and tasks of medical cosmetology;
- make the cosmetological examination of skin and its derivatives;
- differentiate types of skin;

to know the

- objects and methods of medical cosmetology;
- structure and functions of skin and its derivatives;
- modern methods of treatment in medical cosmetology.

### **Topic 1. Introduction to medical cosmetology.**

**Motivational description.** Modern *cosmetology* is an integrated academic subject, which is on the border of many medical and pharmaceutical specialties: dermatology, surgery, endocrinology, physiotherapy, regenerative and prophylactic medicine, therapy, psychology, pharmacology and etc. The *aims of cosmetology* are maintenance and strengthening of health, education of cosmetic care culture, correction and elimination of the cosmetic affliction. *The tasks* of modern cosmetology are removal of the cosmetic defects and development of new therapy schemes and methods of cosmetological pathology treatment. *Objects of cosmetology* are person, skin and its appendages, methods of cosmetological correction. *Methods* of modern cosmetology are pharmacological, manual, cosmetics, cosmetological hardware, dermatologic, surgical and others methods of removal and correction of the cosmetic defects.

**Training and targeted questions.** During study of this topic to learn the basic definitions:

- general cosmetology;
- medical cosmetology;
- aesthetic cosmetology;
- objects and methods of medical cosmetology;
- structure of cosmetic facilities;
- beauty room;
- beauty saloon;
- cosmetologic clinic;
- informed consent to procedure.

### **Practical skills**

to be able

- make the workplace of cosmetologist ready

- make the patient ready for cosmetological procedure
- make an informed agreement to cosmetological procedure

### **Control questions**

1. Aim, tasks, objects and methods of modern cosmetology.
2. Classification of general cosmetology.
3. Characterize the medical cosmetology and aesthetic cosmetology, compare them by key parameters.
4. Main institutions of cosmetological care and treatment.
5. Characterize the informed agreement to cosmetologic procedure, its structure, validation.

### **Tasks for individual work**

1. Mark the:
  - a. basic history stages of forming of cosmetology as a science.
  - b. characteristic singularity of communication between cosmetologist and patient.
2. Make out the model of informed consent to procedure.
3. Dispose the variants of cosmetological institutions in order of growth of amount of aid
 

a. tattoo saloon	b. wellness center	c. tan saloon
d. beauty room	e. clinical cosmetological center	f. SPA-center
g. beauty saloon	h. cosmetological clinic	i. fitness-center.

## **Topic 2. Skin as an object of cosmetic intervention**

**Motivational description.** It is necessary to consider the structural and functional features of skin to ground physiological practicability of cosmetics application and cosmetological methods using. The skin consists of three layers: epidermis, dermis and hypodermis. The hairs, sebaceous and sweat glands, nails are skin's appendages. The functions of cosmetics or cosmetological methods are determined by possibility to affect the biochemical processes at the level of three-dimensional structure of skin.

**Training and targeted questions.** During study of this topic it is necessary to learn the basic definitions:

- barrier function of skin
- epidermal barrier
- natural moisturizing factor
- skin's penetrability
- types of skin
- individual cosmetic care

### **Practical skills**

to be able

- determine the type of skin

- make a sebo-secretion test of skin, tonicity and elasticity tests of skin, sensitiveness test of skin, blood perfusion test of skin
- make out the individual cosmetic care of different type of skin.

### **Control questions**

1. Anatomy and physiology of skin.
2. Anatomy and physiology of hairs, nails, oil-glands, sweat-glands.
3. Vascular system of skin.
4. Neural-sensory system of skin.
5. Barrier function of skin.
6. Structure and functions of epidermal barrier.
7. Composition and functions of natural moisturizing factor.
8. Penetrability of skin.
9. Sexual and age features of skin.
10. Cosmetological description of skin types.
11. Cosmetological diagnostics of skin: sebo-secretion test, tonicity and elasticity tests, sensitiveness test, blood perfusion tests.
12. Instrumental diagnostics of skin.
13. Individual cosmetic care of different types of skin: stages, forms, regimens.

### **Tasks for individual work**

1. Define and describe the type of skin according the level of sebo-secretion.
2. Define and describe elastic properties of skin.
3. Define and describe the level of type skin blood perfusion.
4. Define and describe the type of skin sensitiveness.
5. Make out and explain of individual cosmetic care of skin regulation.
6. Name the types of skin according sebo-secretion level
 

a. normal	b. sensitive	c. thick	d. young
e. oily	f. allergic	g. healthy	h. aging
i. dry	j. pathologic	k. mixed	l. infantile
7. Name the test for sebo-secretion level evaluation
 

a. cutometry	b. rotary-compression test	c. sebumetry
d. profilometry	e. ultrasound examination	f. method of skin replication
8. Name the cosmetics recommended for cleaning of oily skin
 

a. cosmetic milk	b. foaming gel	c. lotion
d. cosmetic soap	e. cosmetic talc	f. suspension
g. nourishing mask	h. cleaning cream	i. ointment

### **Topic 3. Modern methods of treatment in medical cosmetology. Cosmetics, manual and apparatus methods.**

**Motivation description.** The modern cosmetology uses many facilities and methods of cosmetic correction and medical treatment. They are listed in order of complexity of techniques and accordingly increase of requirements for professional level of specialist. The cosmeceuticals are used in

modern cosmetic practice. These highly effective tools are between cosmetics and drugs. Manual cosmetic methods are manipulations, carrying out by the hands of cosmetologist with use of cosmeceuticals, instruments and tools. Apparatus methods are carrying out by special cosmetology equipment which use of electric current, temperature, pressure, sound vibrations, mechanical energy, light and other factors.

**Training and targeted questions:** During study of this topic to learn the basic definitions:

- cosmeceuticals;
- professional cosmetics;
- medical cosmetics;
- manual cosmetic methods;
- apparatus cosmetic methods;
- algotherapy;
- thalassotherapy;
- pelotherapy;
- stone therapy;
- aromatherapy;
- hydrotherapy;
- SPA-therapy;
- photo therapy;
- electrotherapy;
- thermotherapy;
- pressure therapy;
- ultrasound therapy;
- epilation and depilation;
- mechanotherapy.

### **Practical skills**

#### to be able

- differentiate cosmetics by forms and Biological Active Substances (BAS)
- characterize and differentiate basic manual cosmetic methods
- characterize and differentiate basic apparatus cosmetic methods
- consult a patient about rational using of cosmetics and cosmetic methods.

### **Control questions.**

1. Medical and professional cosmetics in cosmetological practice: forms, BAS, assortment.
2. The manual methods in cosmetology: compresses, masks, manual comedo extraction, cosmetic massage.
3. Peels: classification, general description, indications, contraindications.
4. Algotherapy, clay treatment, pelotherapy, thalassotherapy in cosmetology.
5. Hydrotherapy, stone therapy, SPA-therapy.
6. Aromatherapy in cosmetology.

7. Epilation and depilation: determination, classification, indications and contraindications.
8. Apparatus methods in medical cosmetology: classification, description, common indications and contra-indications.
9. Electrotherapy in cosmetology.
10. Pressure therapy in cosmetology.
11. Ultrasound therapy in cosmetology.
12. Mechanical apparatus methods in cosmetology.
13. Phototherapy in cosmetology: classification, description, indications and contraindications.
14. Thermotherapy in cosmetology: classification, indications and contraindications.

### **Tasks for individual work**

Give examples of:

- a. 10 names of medical cosmetics of different forms;
- b. 5 forms of cosmetic masks and 5 varieties of cosmetic masks according effect;
- c. using thalassotherapy in cosmetology;
- d. using aromatherapy in cosmetology;
- e. using of peels in cosmetology;
- f. using of electric current in cosmetology;
- g. epilation and depilation;
- h. using ultrasound therapy in cosmetology;
- i. using mechanical influence in cosmetology;
- j. using pressure therapy in cosmetology;
- k. using thermotherapy in cosmetology;
- l. using hydrotherapy in cosmetology;
- m. using photo therapy in cosmetology.

### **Topic 4. Current methods of treatment in medical cosmetology. Injection therapy, dermato-surgical and surgical methods.**

**Motivation description.** Injection therapy, dermato-surgical and surgical methods belong to medical cosmetology. Knowledge of the given methods, their descriptions, indications and contraindications to their applications enable the doctor to use them rationally in the clinical practice. *Mesotherapy* is a microinjection therapy by syringe or injector with using special allopathic or homeopathic drugs. *Botulinum toxin injection* is used in esthetic medicine for mimic wrinkles and hyperhidrosis treatment. *Soft tissue augmentation* is an elimination of deep wrinkles by filling of special drugs – fillers or increasing of lips in volume by the same way. *Thread lift* is a noninvasive suspension of the facial and cervical soft tissue by the introduction of medical threads (gold, barbed-thread). *Electrocoagulation* is an electric cautery of tissue. *Cryodestruction* is a destruction of tissue by liquid nitrogen or carbonic-acid snow freezing. *Microdermabrasion* is a method based on crystal

exfoliating. *Mechanical deep peeling* is a dermabrasion by Schumann cutter. *Laser photocoagulation* is a destruction of tissue by intensive laser beam, which is absorbed by water molecules in skin. *Laser peel* (laser dermabrasion, laser rejuvenation) is using intensive laser beam for smoothing skin relief and color. *Laser photothermolysis for vascular targets* is using of laser beams for superficial vessels coagulation based on selective photothermolysis concept. *Rhytidectomy* (facelift, circular face lifting) is a removal of excess face and cervical skin with following redraping of it (subcutaneous, endoscopic). *Blefaroplasty* is a correction of eyelid defects by modification of eyes contour, elimination of wrinkles and eyelid folds and removal of fat bags. *Rhinoplasty* is a plastic surgery procedure for correcting and reconstructing the form, restoring the functions, and aesthetically enhancing the nose, by resolving nasal trauma (blunt, penetrating, blast), congenital defect, respiratory impediment, and a failed primary rhinoplasty. *Mentoplasty* is a chin height reduction to help balance the facial proportions. *Mammoplasty or mammoplasty* refers to a group of surgical procedures, the goal of which is to reshape or otherwise modify the appearance of the breast. *Liposuction* is a cosmetic surgery operation that removes fat from many different sites on the human body. *Abdominoplasty* is a cosmetic surgery removal of excess skin and fat from the middle and lower abdomen in order to tighten the muscle and fascia of the abdominal wall. Given methods are effective procedures of radical elimination of cosmetic defects and widely used in clinical practice.

**Training and targeted questions.** During study of this topic to learn the basic definitions:

- mesotherapy, meso-botox, meso-peel , mesoglow, mesolift, mesosculpt, non injection mesotherapy
- soft tissue augmentation
- aesthetic using of botulinum toxin
- tread lift
- electrocoagulation
- cryodestruction
- radio wave coagulation
- deep chemical peel
- laser photocoagulation
- laser peel
- laser epilation
- microdermabrasion, dermabrasion
- laser photothermolysis for vascular targets
- rhytidectomy
- blepharoplasty
- rhinoplasty
- otoplasty
- mentoplasty

- mammoplasty
- liposuction
- abdominoplasty

### **Practical skills**

#### to be able

- differentiate and characterize cosmetologic methods:
  - a. injection;
  - b. dermato-surgical;
  - c. surgical;
- consult a patient how to use of cosmetologic methods rationally

### **Control questions**

1. The general description of injection methods in medical cosmetology.
2. Mesotherapy: description of method, types of mesotherapy, indications and contra-indications, assortment of preparations for mesotherapy.
3. Aesthetic using of botulinum toxin (BT): description of method, indications and contra-indications, assortment of BT drugs in medical cosmetology.
4. Facial implants and fillers: description of method, indications and contra-indications, assortment of preparations.
5. The dermato-surgical methods in medical cosmetology: general description.
6. Electrocoagulation, cryodestruction, selective photothermolysis: description of methods, indications and contra-indications.
7. Laser peel, radio waving therapy: description of methods, indications and contra-indications.
8. Dermabrasion and microdermabrasion: description of methods, indications and contra-indications.
9. Laser epilation and photo epilation: description of method, indications and contra-indications.
10. Surgical methods in medical cosmetology: general description, indications and contra-indications.
11. Blepharoplasty, rhinoplasty, otoplasty, rhytidectomy: description of methods, indications and contra-indications.
12. Liposuction, mammoplasty, abdominoplasty: description of methods, indications and contra-indications.

### **Tasks for individual work**

Make examples of using next methods in clinical practice:

- a. botullinum toxin (aesthetic medicine)
- b. facial implants
- c. laser epilation
- d. laser photothermolysis for vascular targets
- e. laser coagulation
- f. laser peel
- g. electro-coagulation and cryodestruction

- h. standard dermabrasion and microdermabrasion
- i. mammoplasty
- j. otoplasty
- k. rhinoplasty
- l. abdominoplasty

## **Submodule 2**

*(Topics 5–8)*

### **Medical cosmetology in clinical practice.**

#### **Cosmetic defects of face and body skin**

#### **Specific objectives:**

##### to be able

- expose the cosmetic defects of skin, which are need of treatment in cosmetological clinics;
- characterize the most widespread cosmetologic pathology of skin: aging of skin, dyschromia, sensitive skin, dry skin, erythro-couperose, scars, cellulite;
- differentiate cosmetologic pathology of face and body skin;
- characterize cosmetic methods of the most widespread cosmetologic defects pathologies of face and body skin treatment;
- make out and explain an individual cosmetic care for correction of the cosmetic defects of face and body skin;
- consult the patient on rational using of cosmetologic methods and preparations for prophylaxis and treatment of the cosmetic defects of face and body skin.

#### **Topic 5. Aging of skin**

**Motivational description.** The aging is a complex inevitable multivariable process, which takes a place in all of organs and tissues of organism, including skin. Both internal factors (heredity, stress, endotoxycosis, caused by pathology of internal organs, condition of the immune and hormonal systems and other) and external factors (ultraviolet, unfavorable ecology, allergens, smoking, alcohol, inefficient feed, mechanical damages, toxic matters of cosmetics, gravity tension and other) influence on speed and intensity of aging. Aging mechanism is still unknown, although there are some aging theories, the theory of glycation and free-radical theory are generally accepted. Modern international statistics assert the population of planet aging steadily. Only for the second half of the last century average duration of life grew on 20 years, and more than 1 milliard of persons overcame 60 years border to 2005. The number of people older 65 years will increase more than twice, and a general number will be 2 milliards to 2050. A new medical concept - retarding (delayed) aging, at which ageing begins considerably later, than on the whole on population. Today the representatives of elderly generation prefer to live fast, trying to keep not only a well being but also good appearance. Therefore the external signs of aging can determine social adaptation of aging person and influence on his quality of life.

### **Training and targeted questions:**

During study of this topic students must learn basic terms and definitions:

- chronaging;
- photo aging;
- hormonal aging;
- glycation theory of aging;
- free-radical theory of aging;
- «cellular clock» theory of aging;
- DNA damage and repair theory of aging;
- wrinkles, types of wrinkles;
- types of facial skin aging;
- criteria of healthy skin.

### **Practical skills**

#### To be able

- differentiate and characterize chronaging and photo aging;
- differentiate the types of facial skin aging and types of wrinkles;
- differentiate the stages of skin photo aging;
- differentiate and characterize hormonal aging;
- characterize and differentiate cosmetologic methods and facilities for aging correction;
- make out the individual cosmetic anti-aging care;
- consult the patient about rational using of cosmetic facilities and methods for aging skin correction.

### **Control questions.**

1. Aging of skin: definition, etiology, pathogenesis, factors, classification.
2. Basic theories of skin aging.
3. Clinical presentation of chronaging.
4. Clinical presentation of photo aging.
5. Clinical presentation of hormonal aging.
6. Types of facial skin aging, types of wrinkles.
7. Differential diagnosis of different types of skin aging.
8. Cosmetologic facilities and methods of skin ageing correction.

### **Tasks for individual work**

1. Mark the cosmetic methods which are applied for the correction of aging skin.

a) Mesotherapy	b) Manual deep cleaning.	c) Electro-coagulation
d) Vaporization	e) Classical face massage	f) Massage by Jacque
g) Cryodestruction	h) Micro current therapy	i) D'arsonvalization
j) Chemical peels	k) Apparatus lymphatic drainage	l) Laser deep peel
m) Myostimulation	n) Cosmetic electrophoresis	o) Vacuum therapy

2. Mark the cosmetic facilities and methods which are applied for the correction of deformative ageing.

- |                                 |                              |
|---------------------------------|------------------------------|
| a) Myostimulation               | b) Rhytidectomy              |
| c) Laser deep peel              | d) Facial implants           |
| e) Vacuum massage               | f) Thread lift               |
| g) Massage by oil               | h) Botulinum Toxin injection |
| i) Apparatus lymphatic drainage | j) Vascular laser            |

3. Name the generally accepted pathophysiologic aging theories.

- |                        |                          |                      |
|------------------------|--------------------------|----------------------|
| a. Glycation           | b. Oxidative stress      | c. Telomeres         |
| d. Accumulation        | e. DNA damage and repair | f. Autoimmunity      |
| g. Estrogen saturation | h. Water-salt balance    | i. Acid-base balance |

4. Make out and explain an individual cosmetic care for hormonal aging correction in a perimenopause.

5. Make out and explain an individual cosmetic care for the 2 stage photoaging correction.

6. Make out and explain an individual cosmetic care for the deformative type of skin aging correction.

7. Make out and explain an individual cosmetic care for the wrinkled type of skin aging correction.

8. Women 42 years visited doctor to be consulted about relief of facial skin correction. Her skin is pale, with single telangiectasia, multiple pigmented spots, deep nasolabial lines and crow feet's around the eyes. Advise the patient about rational using of cosmetic facilities and methods for correction her skin ageing patterns.

9. Women 58 years visited doctor to be consulted about cosmetologic correction of galloping facial skin ageing. Objectively: skin is pale, multiple static and dynamic wrinkles, dryness of skin, local desquamation. Advise the patient about rational using of cosmetic facilities and methods for correction her skin ageing patterns.

## **Topic 6. Dyschromia**

**Motivational description.** The color of skin is one of its major and most noticeable signs. It stands on top in the unconscious of people not only as racial test factor but also as estimation of appearance of person pattern. The relation of red, dark blue, yellow and brown pigments have a most influence on the color of skin. The possibility of polymerizates formation in a horny layer of skin from amino acids and carbohydrates which darken the skin was proved last years. The red color of skin is caused by oxidized hemoglobin in capillaries, dark blue — by the reduced hemoglobin in skin veins. The carotin of horny layer and hypodermis jaundices of skin. Brown color is result of the content and distribution of melanin in the skin. Major pigment is melanin, in this connection the violations of pigmentation are divided by 2 groups: melanic and

non-melanin. Non-melanin dyschromias are resulted of colorant presence, which entered in skin endogenously with a blood stream or exogenously (drugs, tattoo and other).

### **Training and targeted questions:**

During study of this topic students must learn basic terms and definitions:

- melanin, melanocyte, melanosoma, melanogenesis;
- dyschromia;
- melanin dyschromia;
- non-melanin dyschromia;
- hypermelanosis;
- hypomelanosis.

### **Practical skills**

to be able

- describe and differentiate dyschromia;
- describe and differentiate hypomelanosis;
- describe and differentiate hypermelanosis;
- describe and differentiate primary and secondary dyschromia;
- describe and differentiate cosmetologic methods and facilities for hypomelanosis correction;
- describe and differentiate cosmetologic methods and facilities of hypermelanosis correction;
- make out the individual cosmetic care for dyschromia correction;
- consult the patient about rational using of cosmetic facilities and methods for dyschromia correction.

### **Control questions.**

1. Dyschromias : determination, factors, classification.
2. Melanogenesis in a skin: localization, stages, biochemical aspects.
3. Hypomelanosis: etiopathogenesis, classification, clinical presentation.
4. Differential diagnosis of hypomelanosis.
5. Treatment of hypomelanosis in cosmetological clinic.
6. Hypermelanosis: etiopathogenesis, classification, clinical presentation.
7. Differential diagnosis of hypermelanosis.
8. Treatment of hypermelanosis in cosmetological clinic.

### **Tasks for individual work**

1. Mark the methods, applied for the hypermelanosis correction
  - a. Dermabrasion
  - b. Topical retinoids
  - c. Systemical antioxidants
  - d. Laser peel
  - e. Medical tattoo
  - f. Topical vitamin C derivatives
  - g. Topical azelaic acid
  - h. Topical hydroquinone
  - i. Topical plant bleaching substances
  - j. Autobronzate
  - k. Chemical peels
  - l. Camouflaging make-up

2. Mark methods, applied for the hypomelanosis correction:
 

a. Dermabrasion	b. Topical retinoids
c. Systemical antioxidants	d. Laser peel
e. Medical tattoo	f. Topical vitamin C derivatives
g. Topical azelaic acid	h. Topical hydroquinone
i. Topical plant bleaching substances	j. Autobronzate
k. Chemical peels	l. Camouflaging make-up
3. Make out and explain an individual cosmetic care for melasma solare.
4. Make out and explain an individual cosmetic care for vitiligo.
5. The 18 years girl visited doctor to be consulted about bleaching procedures. Objectively: there are multiple small spots of irregular form of light brown and hazel color on the skin of face, breast and overhead extremities. The spots became darker in summer and lighter in winter. Advice the patient about rational using of cosmetic facilities and methods for correction her skin dyschromia.
6. Mark the trigger factors of acquired hypermelanosis
 

a. Endocrine disorders	b. Disorders of inner organs
c. Pregnancy	d. Oral contraceptive using
e. Insolation	f. Infra red and hot treatment
g. Trauma of skin	h. Aggressive cosmetic methods
i. Photosensitizers using	j. Contact with petrol and technical oils
7. Name the secondary hypermelanosis
 

a. Lentigo	b. Melanism	c. Lichen planus	d. Eczema
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8. Name the melanocytopenic hypomelanosis
 

a. Vitiligo	b. Non pigmented nevus	c. Piebaldism
d. Chloasma	e. Post inflammatory leucoderma	f. Tuberous sclerosis
9. Name the BAS with direct bleaching effect
 

a. Azelaic acid	b. Allantoin
c. Hydroquinone	d. Vitamin A
e. Ascorbic acid	f. Vitamin B
g. Aloesin	h. Caffeine

### **Topic 7. Sensitive skin. Dry skin. Erythro couperose.**

**Motivational description.** According to data of modern European medical literature, 61% women 35-60 years consider their skin sensitive and erythro couperose symptoms are marked by 78% of women. Cosmetologists and dermatologists considered for long time, that dry skin is obligatory sebstasis i.e. decreasing excretory activity of oily-glands. Their opinion had changed today: a skin can remain dry, in spite of faultless work of oily-glands. Dryness of skin may be caused by not only the lack of moisture but also lipids. Therefore the term a «dry» skin, only partly reflects this problem. Such cosmetic defects as sensitive skin, erythro couperose, dry skin are corrected mainly by cosmetic facilities and methods which the modern doctor need to

know. These pathologic conditions are very common in population because may be sign of dermatosis or inner organ diseases. Modern cosmetology has a lot of methods and facilities to correct of these defects. Clinician must be well oriented in etiology, pathogenesis, clinical presentations of dry, sensitive skin and erythro couperose as to use widely cosmetological methods of their correction.

### **Training and targeted questions:**

During study of this topic students must learn basic terms and definitions:

- sensitive skin;
- irritable skin, «subjective dermatitis»;
- irritated skin;
- dry skin;
- seborrheic type of dry skin;
- sebostatic type of dry skin;
- normal type of dry skin;
- erythro couperose.

### **Practical skills**

to be able

- describe and differentiate of different types of sensitive skin;
- describe and differentiate of different types of dry skin;
- describe and differentiate of erythro couperose;
- describe and differentiate of cosmetic methods and facilities for sensitive skin correction;
- describe and differentiate cosmetic methods and facilities for dry skin correction;
- describe and differentiate cosmetic methods and facilities for erythro couperose correction;
- make out the individual cosmetic care for the sensitive skin correction;
- make out the individual cosmetic care for dry skin correction;
- make out the individual cosmetic care for erythro couperose correction;
- consult the patient about rational using of cosmetic facilities and methods for sensitive skin correction;
- consult the patient about rational using of cosmetic facilities and methods for dry skin correction;
- consult the patient about rational using of cosmetic facilities and methods for erythro couperose correction.

### **Control questions.**

1. Sensitive skin: determination, factors, classification.
2. Etiopathogenesis of sensitive skin.
3. Clinical presentation of different types of sensitive skin.
4. Differential diagnosis of different types of sensitive skin.
5. Cosmetologic correction of sensitive skin.
6. Dry skin: determination, factors, classification.
7. Etiopathogenesis of dry skin.

8. Clinical presentation of different dry skin types.
9. Differential diagnosis of different types of dry skin.
10. Cosmetological methods of treatment of dry skin.
11. Erythro couperose: determination, factors, classification.
12. Etiopathogenesis of erythro couperose.
13. Clinical presentation of erythro couperose.
14. Differential diagnosis of erythro couperose.
15. Cosmetological methods of treatment of erythro couperose.

### **Tasks for individual work**

1. Mark the methods, applied for sensitive skin correction:
 

a. Algae mask	b. Topical Benzoil peroxide	c. Oil massage
d. UV-therapy	e. Alcohol contained cosmetics	f. Enzymatic peel
g. Laser peel	h. D'arsonvalization	i. Ultrasonic peel
j. AHA peel	k. Hyaluronic gel phonophoresis	l. Dermabrasion
2. Mark methods, applied for dry skin correction:
 

a. Emollients	b. Topical Benzoil peroxide	c. Oil massage
d. IR-therapy	e. Alcohol contained cosmetics	f. Vaporization
g. Laser peel	h. D'arsonvalization	i. Cryotherapy
j. AHA peel	k. Hyaluronic gel phonophoresis	l. Dermabrasion
3. Mark the risk factors of erythro couperose:
 

a. Using emollients	b. Abuse of bath-house, sauna
c. Abuse of alcohol	d. Aggressive cosmetological treatment
e. Stress	f. Use hot and spicy food and drinks
g. Insolation	h. Working in a hot environment
i. Smoking	j. Sudden changes in temperature
4. Make out and explain an individual cosmetic care for sensitive skin with low tolerance.
5. Make out and explain an individual cosmetic care for normal type of dry skin.
6. Make out and explain an individual cosmetic care for erythro couperose.
7. A woman 35 years visited doctor to be consulted about procedures for rejuvenation of her skin (chemical peels, mesotherapy and other). She suffers on atopic dermatitis from childhood with annual exacerbation of dermatose in cold period. Objectively: skin of face is dry and grayish-beige color with the areas of hyperemia, telangiectasia, desquamation and lichenification. Advise the patient about rational using of cosmetic facilities and methods for correction cosmetic defects of her skin and rejuvenation.

### **Topic 8. Scars. Striae. Cellulite.**

**Motivational description.** Scar is a product of pathological regeneration, arising up in place of inflammatory process as a result of injury of skin. Cicatrice tissue is not identical to the primary and has more low functional properties. For example, scars of skin are less tolerance to ultraviolet (a sun, solarium), sweat-glands and hair follicles do not appear anew.

Categorizing of scar as aesthetically unacceptable can be objective and subjective. So, objectively "non aesthetic" scars have large length and width, should be hypertrophic or keloid type, localized on the opening surface of body and face. At the same time even the latent scars can be non aesthetic for the patients with enhanceable aesthetic requirements. That is why it is exceptionally important to inform patients about terms, character and features of forming of posttraumatic and future postoperative scars. Clinician must understand the mechanisms of scar development, be well oriented in modern cosmetic facilities and methods of scars removal to estimate correctly possibilities of modern cosmetology and forecast the results of treatment of scar.

Cellulite is change of structural organization of superficial layers of hypodermic tissue which 95% women of population suffer. The symptoms of cellulite got considerable distribution among the different groups of population (especially among women) in the last decades. High demands to appearance, onrush of aesthetic medicine dictate intent attention to this problem. Cellulite is included in a 10 the most frequent first complaints clients to the cosmetologists and they offer the great number of the cellulite correction programs, having local and system impact on organism. Wide distribution of this problem and active introduction of medical cosmetic technologies requires thorough knowledge in this problem from today's doctors.

### **Training and targeted questions:**

During study of this topic students must learn basic terms and definitions:

- scar;
- surgical scar;
- cosmetic scar;
- striae;
- keloid;
- hypertrophic scar;
- cellulite;
- obesity.

### **Practical skills**

#### to be able

- describe and differentiate different types of cosmetic scars;
- describe and differentiate different types of striae;
- describe and differentiate hypertrophic scar and keloid scar;
- describe and differentiate cosmetic methods and facilities of cosmetic scars correction;
- describe cosmetic methods and facilities of striae correction;
- describe cosmetic facilities and methods of scars and striae prophylaxis;
- make out the individual cosmetic care for scars and striae correction;
- consult the patient about rational using of cosmetic facilities and methods for striae and scars correction;
- characterize cellulite;

- differentiate the stages of cellulite;
- differentiate cellulite and obesity;
- make out the individual cosmetic anticellulite care;
- consult the patient about rational using of cosmetic facilities and methods for cellulite correction.

### **Control questions.**

1. Scars: determination, general description, pathogenesis.
2. Risk factors for scars and keloids
3. Classification of scars.
4. Striae: etiopathogenesis, classification, clinical presentation.
5. Physiological cosmetic scars: etiopathogenesis, classification, clinical presentation.
6. Pathological scars: etiopathogenesis, classification, pathomorphology, clinical presentation.
7. Differential diagnostics of keloid and hypertrophy scar.
8. Cosmetic facilities and methods of prophylaxis and treatment of scars.
9. Cosmetic facilities and methods of prophylaxis and correction of striae.
10. Cellulite: determination, general description, risk factors, pathogenesis.
11. Classification of cellulite and its clinical presentation.
12. Diagnostics of cellulite, differential diagnosis between cellulite and obesity.
13. Cosmetic facilities and methods of cellulite treatment.

### **Tasks for individual work.**

1. Mark the risk factors of pathological cosmetic scars:
  - a. Inherited factor
  - b. Traumas of skin with the protracted regeneration
  - c. Negroid race
  - d. Cosmetic methods (peels, piercing) with inadequate wound care
  - e. Burns
  - f. Injection cosmetic methods
  - g. Acne
  - h. Acne-keloid
  - i. Pregnancy
  - j. Hyper function of adrenal cortex
2. Mark the cosmetic facilities and methods, applied for treatment of scars.
  - a. Topical injections of corticosteroids
  - b. Silicon jelly
  - c. Paraffin therapy
  - d. D'arsonvalization
  - e. Surgical cicatrectomy
  - f. Laser peel
  - g. Sand-blast microdermabrasion
  - h. Thalassotherapy
  - i. Cosmetic cleaning
  - j. Chemical peels
3. Make out and explain an individual cosmetic care for scars.
4. Make out and explain an individual cosmetic care for striae.
5. A girl 18 visited doctor for consultation and treatment. Two month ago her earlobe was pierced. Itching, induration in this locus appeared a 2 weeks after procedure. Objectively: the unhealed wound is on place of piercing on ear lobe with inflamed hyperemic edges, surrounded by dense and resilient bright red infiltrate with clear edges 5 mm. Advise the patient about rational using of cosmetic facilities and methods of correction her skin defect.

6. The pregnant woman 28 years, pregnancy 7 month visited cosmetologist for consultation about possible cosmetic treatment of her striae on abdomen skin. Advise the patient about rational using of cosmetic facilities and methods for correction her striae.

7. Mark the triggering factors of cellulite:

- |                                       |  |
|---------------------------------------|--|
| a. Professional employments by sport. | b. Pregnancy   |
| c. Long walking                       | d. Habit to sit, throwing a leg for a leg  |
| e. Menopause                          | f. Abuse of alcohol  |
| g. Varix dilatation lower extremities | h. Smoking   |
| i. Fault in posture                   | j. Going in for sports, related to loading on feet (tennis, volley-ball and other) |
| k. Regular dosed physical training    | l. Use of some medicines   |
| m. Wearing of shoe on a high heel     | n. Overeating  |
| o. Lymphostasis                       | p. Regular use of anticellulite cosmetics  |
| q. Improper feeding                   | r. Sedentary life-style  |

8. Make out and explain an individual cosmetic care for 1 stage of cellulite

9. Mark the cosmetic facilities and methods which are utilized for cellulite treatment

- |  |                             |
|--|-----------------------------|
| a. Otoplasty                                   | b. Facial implants          |
| c. Caffeine cosmetics                          | d. Liposuction              |
| e. Rhitidectomy                                | f. Ultrasound therapy       |
| g. Mesotherapy                                 | h. Vacuum massage           |
| i. Laser photothermolysis for vascular targets | j. Laser peel               |
| k. Myostimulation                              | l. Apparatus Lymph drainage |

10. The woman 42 years visited doctor for consultation about efficiency and safety of anticellulite procedures. Objectively: skin of thighs is pale with cyanotic tint, multiple small telangiectasia, some signs of varicose, disorder of skin relief with recessive and uneven surface regions. Examination: nodular indurations 3-5 sm were determined by palpation, the pinch sign is positive, palpation was painful, cold regions were determined manually. Advise the patient about rational using of cosmetic facilities and methods of treatment of her pathological changes.

### **Submodule 3**

*(Topics 9–12)*

#### **Medical cosmetology in clinical practice.**

##### **Cosmetic defects of skin appendages**

##### **Specific objectives:**

###### to be able

- detect the cosmetic defects of skin appendages which need to be treated in cosmetological clinic;
- characterize the most widespread cosmetic pathology of skin appendages: pathology of sebaceous glands, pathology of hair;

- differentiate a cosmetic pathology of skin appendages;
- characterize cosmetic methods and cosmetics for treatment of the most widespread cosmetic pathology of skin appendages ;
- prescribe individual cosmetic care at the most widespread cosmetic pathologies of skin appendages;
- consult about rational using of cosmetic methods and facilities for prophylaxis and treatment of the cosmetic pathology of skin appendages.

### **Topic 9. Pathology of sebaceous glands. Seborrhea. Rosacea. Perioral dermatitis.**

**Motivational characterization.** Seborrhea is a genetic deterministic disease characterized by disturbance of function of sebaceous glands, quantitative and qualitative changes of skin lipids. It is very common disease, especially among a teenagers and young men. Rosacea is a chronic skin disease which is localized on the face. As a rule, it begins on third-fourth tens of life and affects mainly women. The perioral dermatitis belongs to rosaceoform diseases with unknown etiopathogenesis which typically affects 25–40 years women. The knowledge of clinician about modern agents and methods of cosmetic correction these diseases has not only medical, but also social value, because the patients save their working capacity but actually forced to be long time on out-patient treatment or hospitalization. Besides, long existence of lesion on the face leads to the serious neurotic disorders which accompanied by working productivity slowdown, unsociability, unwillingness to be in collective, etc.

**Training and targeted questions:** During study of this topic to learn basic definitions:

- Seborrhea;
- Seborrheic dermatitis;
- Comedo;
- Porosity;
- Rosacea;
- Phyma;
- Perioral dermatitis.

### **Practical skills**

#### To be able

- describe and differentiate different types of seborrhea;
- describe and differentiate seborrheic dermatitis;
- describe and differentiate different types of rosacea;
- describe and differentiate a perioral dermatitis;
- describe cosmetic methods and facilities of seborrhea correction;
- describe cosmetic methods and facilities of rosacea correction;
- describe cosmetic methods and facilities of perioral dermatitis correction;
- make out the individual cosmetic care for seborrhea correction;
- make out the individual cosmetic care for rosacea correction;
- make out the individual cosmetic care for perioral dermatitis correction;

- consult the patient about rational using of cosmetic facilities and methods for seborrhea treatment;
- consult the patient about rational using of cosmetic facilities and methods for rosacea treatment;
- consult the patient about rational using of cosmetic facilities and methods for perioral dermatitis treatment.

### **Control questions.**

1. Seborrhea: definition, etiopathogenesis, classification.
2. Clinical presentation of seborrhea.
3. Cosmetic facilities and methods of seborrhea treatment.
4. Seborrheic dermatitis: clinical presentation, cosmetic facilities and methods of treatment.
5. Rosacea: definition, etiopathogenesis, triggers.
6. Classification and clinical presentation of rosacea.
7. Cosmetic facilities and methods of rosacea treatment.
8. Perioral dermatitis: definition, etiopathogenesis, triggers.
9. Classification and clinical presentation of perioral dermatitis.
10. Cosmetic facilities and methods of perioral dermatitis treatment.

### **Variants of individual tasks.**

1. Note the triggering factors of rosacea:
 

a. Psychologic stress	b. Using of cosmetic photo protectors	c. Sauna
d. Physical stress	e. Pathology of gastrointestinal tract	f. Hot food
g. Demodicosis	h. Pathology of hepatobiliary system	i. Insolation
j. Hot temperature	k. Topical glucocorticoids	l. Spicy food
2. Note cosmetic facilities and the methods applied for seborrhea treatment
 

a. Desincrustation	b. Paraffin therapy	c. Oil massage
d. Chemical peel	e. Cryomassage	f. Nutrient mask
g. Plucking massage method Jacquet	h. Vaporization	i. Absorbing mask
3. Make out and explain an individual cosmetic care for oily seborrhea.
4. Make out and explain an individual cosmetic care for seborrheic dermatitis.
5. Make out and explain an individual cosmetic care for rosacea.
6. Make out and explain an individual cosmetic care for perioral dermatitis.
7. The woman 48 years visited doctor for diagnosing and treatment of her facial lesions. Objectively: redness and multiple telangiectasias, pink papulae and pustulae on the skin of face particularly the forehead, cheeks, nose, and chin. Advise the patient about rational using of cosmetic facilities and methods of her dermatose treatment.

## **Topic 10. Pathology of sebaceous glands. Acne**

**Motivational characterization.** Acne – one of the most widespread chronic dermatose. The clinical manifestations of the disease quite often conduct to marked cosmetic defects, long terms of treatment and considerable

relapses dictate necessity of the further studying of the nature of acne. According to statisticians, acne occupies one of the first places among of visits to cosmetology clinics. Though acne can be observed at newborns as a result of sebaceous glands stimulation by maternal hormones, this disease, as a rule, mostly is widespread at the age from 12 till 30 years. The vulgar acnes in various degree of manifestation are observed in 60–85% of schoolchildren at the age from 12 till 18 years. The men suffer on acne more frequently, than at women, and course of disease more severe. Because the acne lesions are localized on the face and disease has a chronic course, acne becomes a reason of depressions, influences negatively on social life of patient. The modern cosmetology has wide assortment of cosmetic facilities and methods in its arsenal which the clinician can use in the practice.

### **Training and targeted questions:**

During study of this topic students must learn basic terms and definitions:

- acne;
- acne juveniles;
- acne adultorum;
- childhood acne;
- bodybuilding acne;
- acne cosmetic;
- chloracne;
- postacne;

### **Practical skills**

#### To be able

- describe and differentiate different types of acne;
- describe and differentiate the various stages and severity of acne vulgaris;
- describe and differentiate postacne;
- describe and differentiate cosmetic methods of acne and postacne treatment;
- make out the individual cosmetic care for acne disease;
- make out the individual cosmetic care for postacne;
- consult the patient about rational using of cosmetic facilities and methods for acne treatment;
- consult the patient about rational using of cosmetic facilities and methods for postacne treatment.

### **Control questions**

1. Acne disease: definition, triggering factors.
2. Etiopathogenesis of acne.
3. Classification and clinical presentation of different types of acne disease.
4. Classification and clinical presentation of acne juveniles.
5. Clinical presentation of postacne.
6. Cosmetic facilities and methods for acne and postacne treatment.

## Tasks for individual work

1. Note cosmetic facilities and methods applied for acne treatment:
  - a. Desincrustation
  - b. Vaporization
  - c. Plucking massage method Jacquet
  - d. Oil massage
  - e. UV-therapy
  - f. Manual comedone extraction
  - g. Ultrasonic peel
  - h. Liposuction
  - i. Laser vascular photothermolysis
  - j. Salicylic peel
  - k. Mesotherapy
  - l. Electrocoagulation
2. Note cosmetic facilities and methods applied for postacne treatment:
  - a. Oil massage
  - b. Paraffinotherapy
  - c. Laser deep peel
  - d. AHA-peeling
  - e. Ultrasonic peel
  - f. Plucking massage method Jacquet
  - g. Rhytidectomy
  - h. Phytopeeling
  - i. Microdermabrasion
3. Make out and explain an individual cosmetic care for acne juveniles.
4. Make out and explain an individual cosmetic care for postacne.
5. The woman 34 years visited doctor for diagnosing and treatment of her facial lesions, which affected her last 3 years. Objectively: multiple pustulae, pink papulae 2–4 mm in diameter, hypermelanotic spots, atrophic scars, extended pores on the skin of face particularly chin and lower part of cheeks. Anamnestic data: menstrual disorder during last years, exacerbation of lesion 3-7 days before menstruation. Your provisional diagnosis. Prescribe examination. Advise the patient about rational using of cosmetic facilities and methods for her dermatose treatment.
6. The young man 21 years visited doctor and asks consultation about cosmetic procedures for his face lesion treatment. Objectively: multiple open and closed comedones, pustulae, papulae on the skin of forehead, cheeks and chin. Anamnesis data: he suffered from acne juveniles last 4 years with periodical exacerbations. Advise the patient about rational using of cosmetic facilities and methods for his disease correction.
7. Make a differential diagnosis of acne juveniles and acne rosacea.

## Topic 11. Pathology of hair. Hair loss (alopecia)

**Motivational characterization.** Pathological hair loss is named alopecia (baldness). Growth of hair is the cyclic process: growing stage anagen is changed to short transitive stage catagen and then the last stage telogen when the hair stop growing and hair loss starts. After the telogen stage is finished the new hair starts growing in this follicle. Loss of a hair is always a psychological trauma. Even insignificant hair loss is a reason of emotional experience of many people. The modern cosmetology has a lot of facilities and methods for hair loss treatment and the clinician can successfully use them in own medical practice.

### Training and targeted questions:

During study of this topic student must learn basic definitions:

- alopecia;
- scarring alopecia;
- non scarring alopecia;

- focal alopecia;
- diffuse alopecia;
- telogen effluvium;
- anagen effluvium;
- androgenetic alopecia.

### **Practical skills**

#### To be able

- describe and differentiate different types of alopecia;
- describe and differentiate different types of scarring alopecia;
- describe and differentiate cosmetic methods of scarring and non scarring alopecia treatment;
- make out the individual cosmetic care for different types of non scarring alopecia;
- consult the patient about rational using of cosmetic facilities and methods for treatment of different types of non scarring alopecia.

### **Control questions.**

1. Alopecia: definition, classification.
2. Scarring alopecia: etiopathogenesis, classification, clinical presentation.
3. Not scarring alopecia: etiopathogenesis, classification.
4. Focal alopecia: definition, etiopathogenesis, clinical presentation, clinical types, severity degrees.
5. Cosmetic facilities and methods of focal alopecia treatment.
6. Androgenetic alopecia: definition, etiopathogenesis.
7. Androgenetic alopecias clinical presentation in men.
8. Androgenetic alopecias clinical presentation in women.
9. Cosmetic facilities and methods of androgenetic alopecia treatment.
10. Diffusive alopecia: definition, classification, etiopathogenesis.
11. Telogen effluvium: classification, triggering factors, clinical presentation.
12. Cosmetic facilities and methods of telogen effluvium treatment.
13. Anagen effluvium: triggering factors, clinical presentation.
14. Jatrogenic alopecia: types, causes, preventive measures.

### **Tasks for individual work**

1. Note the factors leading to telogen effluvium:
 

a. postpubertal period	b. autoimmune affect on hair follicles	c. pregnancy
d. using of cytostatics	e. severe diseases with intoxication	f. old age
g. traumas, shock	h. transplantation of hair follicles	i. nervous stress
2. Note the methods applied for alopecia correction:
 

a. Massage of head	b. Cosmetics with biostimulators
c. Paraffin therapy	d. Darsonvalization
e. Microcurrent therapy	f. Ultrasound therapy
g. Infra-red therapy	h. Iontophoresis of vasoactive agents
i. Transplantation of hair	

3. Make out and explain an individual cosmetic care for focal alopecia.
4. Make out and explain an individual cosmetic care for androgenetic alopecias.
5. Make out and explain an individual cosmetic care for telogen effluvium.
6. The young woman with complaints of hair loss visited doctor to be consulted about modern cosmetic methods of treatment her problem. Objectively: the thinning hair on top of her head, acne on the face. She suffers on ovary cystic disease. She took oral contraceptives during last 3 years and discontinued the use pills 5 month ago. Your provisional diagnosis. Advise the patient about rational using of cosmetic facilities and methods of her disease treatment.
7. The young man 19 years with complaints of hair loss visited doctor for diagnosis and treatment. Objectively: three areas of hair loss 20 mm in diameter on head and cheek. The skin of affected areas is without any changes. Anamnestic data: he detected hair loss casually; any subjective signs as burning, pain or itching were not. He was in the midst of a life catastrophe connected with severe disease of his girl friend one month ago. Your provisional diagnose. Advise the patient about rational using of cosmetic facilities and methods of his disease treatment.

## **Topic 12. Pathology of hair. Excessive hair growth. Follicle dystrophy.**

### **Hyperkeratosis of scalp.**

**Motivational characterization.** The term "Hirsutism" (from lat. Hirsutus – shaggy, hairy) in medical practice the French doctor E. Aper had introduced in 1910. It is excessive androgen dependent hair growth from women: on the face, a breast, round the nipple, on a white line of abdomen, on skin of sacrum, internal surface of hips, skin of genitals (adult male pattern of hair distribution). This condition caused by excessive production of androgens. The hypertrichosis affects men and women. This is the form of excessive hair growth on any fields of body, including androgen independent regions. Structural changes of stem of hair usually are resulted of inherited or acquired metabolic disturbances, and also incorrect cosmetic care. The hyperkeratosis of scalp includes seborrhea and seborrheic dermatitis, psoriasis. These diseases have different pathogenesis, clinical presentation and specified approaches to treatment. Hyperkeratosis of scalp are very extended in the population and successfully corrected by cosmetic facilities and methods. So the great attention should be paid to this question in modern professional training of the future clinician.

### **Training and targeted questions:**

During study of this topic students must learn basic terms and definitions:

- hypertrichosis;
- hirsutism;
- follicle dystrophy;
- hyperkeratosis of scalp;

## **Practical skills**

### To be able

- differentiate hypertrichosis and hirsutism;
- describe and differentiate:
  - a) hirsutism;
  - b) hypertrichosis;
  - c) follicle dystrophy;
  - d) hyperkeratoses of scalp;
- prescribe individual cosmetic care at various kinds of a hirsutism and a hypertrichosis;
- make out the individual cosmetic care for:
  - a) different types of follicle dystrophy;
  - b) different types of hyperkeratosis of scalp;
- consult about prevention and cosmetic treatment of:
  - a) different types of hirsutism and hypertrichosis;
  - b) different types of follicle dystrophy;
  - c) hyperkeratosis of scalp

### **Control questions.**

1. Hirsutism: etiopathogenesis, classification, clinical presentation, cosmetic facilities and methods of treatment.
2. Hypertrichosis: etiopathogenesis, classification, clinical presentation, cosmetic facilities and methods of treatment.
3. Follicle dystrophy: etiopathogenesis, classification.
4. Inherited follicle dystrophy: clinical presentation, cosmetic facilities and methods of treatment.
5. Acquired follicle dystrophy: clinical presentation, cosmetic facilities and methods of treatment.
6. Iatrogenic follicle dystrophy: clinical presentation, cosmetic facilities and methods of treatment.
7. Hyperkeratosis of scalp: clinical presentation, cosmetic facilities and methods of treatment.

### **Tasks for individual work**

1. Mark cosmetic facilities and methods used for treatment of follicle dystrophy:
  - a. Massage of scalp
  - b. Cryomassage
  - c. Nutrient mask with hair wrap
  - d. Darsonvalization
  - e. Oil hair wrap
  - and IR therapy
  - f. AHA-peel of scalp
  - g. Photoepilation
  - h. Clay mask
2. Mark cosmetic facilities and methods used for treatment of hyperkeratosis of scalp:
  - a. Massage of scalp
  - b. AHA-peel
  - c. Phonophoresis of keratinization regulators
  - d. Darsonvalization
  - e. Photoepilation
  - f. Shampoo with keratolytics
  - g. Wax depilation
  - h. Shampoo with sebum production regulators
  - i. Vaporisation
  - j. Sugar depilation
  - k. Cryomassage
  - l. Shampoo with antifungal

3. Mark cosmetic facilities and methods used for hirsutism treatment:
 

a. Electroepilation	b. Taking COK	c. Antiandrogenes
d. Photoepilation	e. Wax depilation	f. Phonophoresis of
g. Laser epilation	h. Paraffinotherapy	biostimulators
i. Cryomassage	j. Vaporisation	k. Darsonvalization
4. Make out and explain an individual cosmetic care for follicle dystrophy.
5. Make out and explain an individual cosmetic care for hypertrichosis.
6. Make out and explain an individual cosmetic care for oil seborrhea scalp.
7. Make out and explain an individual cosmetic care for psoriasis of scalp.
8. The young man 24 years with complaints of itching skin of scalp and dandruff visited doctor for diagnosis and treatment. Objectively: focuses of hyperemia and thin white dry scales on the skin of scalp, forehead, nasolabial folds, and inner part of cheeks. Your provisional diagnose. Advise the patient about rational using of cosmetic facilities and methods of his disease treatment.

### **Submodule 4**

*(Topic 13)*

#### **Medical cosmetology in medical practice.**

#### **Complications of cosmetological treatment and their prophylaxis**

##### **Specific objectives:**

- to know the complications of cosmetological treatment;
- to know the preventive methods of complications of cosmetological treatments;
- to be able use the methods of prophylaxis of complications in cosmetology.

#### **Topic 13. Complications of cosmetological treatment and their prophylaxis**

**Motivational characterization.** Swift development of cosmetology, the appearance of high technological cosmetics, complex equipment's, the wide distribution of injection, dermato surgical and surgical methods require of high professionalism from specialists, which work not only in aesthetic medicine. Modern clinician, who studied medical cosmetology, can build the constructive dialogue with patients of different profile, but can prevent complications and side effects of cosmetic facilities and methods application.

##### **Training and targeted questions:**

In study of this topic to learn the basic definitions:

- jatrogenic dermatitis;
- jatrogenic dyschromia;
- jatrogenic scars;
- infection complications after cosmetological treatment;
- jatrogenic hemorrhages.

##### **Practical skills**

##### To be able

- characterize and differentiate most common infection complications after cosmetological treatment;

- characterize most common non infection complications after cosmetological treatment;
- prescribe an individual cosmetic care for prevention of complications after cosmetological treatment;
- consult the patient about measures of prevention of complications after cosmetological treatment.

### **Control questions:**

1. Basic complications in cosmetology.
2. Iatrogenic dermatitis in cosmetic practice: reasons, risk factors, risk groups, prophylaxis, treatment.
3. Iatrogenic infections in cosmetic practice: reasons, risk factors, risk groups, prophylaxis, treatment.
4. Scars as a result of cosmetic manipulations: reasons, risk factors, risk groups, prophylaxis, treatment.
5. Iatrogenic dyschromia in cosmetology: reasons, risk factors, risk groups, prophylaxis, treatment.
6. Hemorrhages as a complications after cosmetic manipulation: reasons, risk factors, risk groups, prophylaxis, treatment.
7. Other complications after cosmetological treatment: reasons, risk factors, risk groups, prophylaxis, treatment.

### **Tasks for individual work:**

1. Name complications after tattoo:
 

a. Artificial dermatitis	b. Burn	c. Asymmetry of face
d. Granulomatous inflammation	e. Hematoma	f. Exacerbation of herpes
i. Allergic contact dermatitis	g. Pyoderma	h. Viral hepatitis
	j. HIV-infection	k. Excessive hair grows
2. Make out and explain the pre peeling and post peeling individual cosmetic care for prophylaxis of complications after medium chemical peel.
3. Women 35 years old visited doctor for consultation about anti aging treatment. She suffered on atopic dermatitis which is in remission for a year. Recommend anti aging treatment for the patient considering her diagnosis. Advise her about measures of prophylaxis of complications after anti aging cosmetological treatment.
4. Women 32 years old visited doctor with complaints on itching, redness, scaling of eyelids and retro auricular area skin. Anamnestic data: manifestation of lesions after new nail enamel using. Disease progressed with every new application. Your provisional diagnosis. Advise the patient about treatment of her skin disease, about role of cosmetic factor in this defect development, about prevention methods.
5. Advise the woman 42 years old about prevention of side effects and complications after micro pigmentation of lips.
6. Advise the patient which plans laser deep peel about prevention of herpes exacerbation after procedure.

## STRUCTURE OF CREDIT-MODULE «MEDICAL COSMETOLOGY»

№ of Topic	Name of Topic	lectures	Practice	Self- prep.work
1	Introduction to medical cosmetology	0	1	0,5
2	Skin as an object of cosmetic intervention	0	2	0,5
3	Modern methods of treatment in medical cosmetology. Cosmetics, manual and apparatus methods	0	2	1
4	Current methods of treatment in medical cosmetology. Injection therapy, dermato-surgical and surgical methods	0	2	1
5	Aging of skin	0	2	1
6	Dyschromia	0	1	1
7	Sensitive skin. Dry skin. Erythro couperose.	0	2	1
8	Scars. Striae. Cellulite	0	3	1
9	Pathology of sebaceous glands. Seborrhea. Rosacea. Perioral dermatitis	0	3	1
10	Pathology of sebaceous glands. Acne	0	2	1
11	Pathology of hair. Hair loss (alopecia)	0	3	1
12	Pathology of hair. Excessive hair growth. Follicle dystrophy. Hyperkeratosis of scalp.	0	2	1
13	Complications of cosmetological treatment and their prophylaxis	0	2	1
	Final module control of knowledge	0	3	3
	Total number of hours 45 Credits ECTS 1,5	0	30	15

## THEMATIC PLAN OF PRACTICAL CLASSES

№	Topics of practical lessons	Number of hours
1	Introduction to medical cosmetology. Skin as an object of cosmetic intervention. Modern methods of treatment in medical cosmetology. Cosmetics, manual and apparatus methods	5
2	Current methods of treatment in medical cosmetology. Injection therapy, dermato-surgical and surgical methods. Aging of skin. Dyschromia	5
3	Sensitive skin. Dry skin. Erythro couperose. Scars. Cellulite	5
4	Pathology of sebaceous glands. Seborrhea. Rosacea. Perioral dermatitis. Acne Postacne	5
5	Pathology of hair. Hair loss (alopecia). Pathology of hair. Excessive hair growth. Follicle dystrophy. Hyperkeratosis of scalp	5
6	Complications of cosmetological treatment and their prophylaxis. Final module control	5
	Total	30

## DEALING OUT OF BALLS

№	Module 1 (current educational activity)	Balls
1	Sub-module 1. Topics: 1, 2 Topics: 3, 4	10–16 10–16
2	Sub-module 2. Topics 5, 6 Topics 7, 8	10–16 10–16
3	Sub-module 3. Topics: 9, 10 Topics 11, 12	10–16 10–16
4	Sub-module 4. Topic 13	10–16
	Defense of abstracts	0–8
Current balls		70–120
Final module control:		50–80
Total balls		120–200

### FOR CURRENT EDUCATIONAL ACTIVITY:

Student's current educational activity	Conversation in balls
«5»	16
«4»	13
«3»	10
«2»	0

### CONTROL QUESTIONS TO FINAL MODULE CONTROL

1. Aim, tasks, objects and methods of modern cosmetology.
2. Classification of general cosmetology.
3. Characterize the medical cosmetology and aesthetic cosmetology, compare them by key parameters.
4. Main institutions of cosmetological care and treatment.
5. Characterize the informed agreement to cosmetologic procedure, its structure, validation
6. Anatomy and physiology of skin.
7. Anatomy and physiology of hairs, nails, oil-glands, sweat-glands.
8. Vascular system of skin.
9. Neural-sensory system of skin.
10. Barrier function of skin.
11. Structure and functions of epidermal barrier.
12. Composition and functions of natural moisturizing factor.
13. Penetrability of skin.
14. Sexual and age features of skin.
15. Cosmetological description of skin types.
16. Cosmetological diagnostics of skin: sebo-secretion test, tonicity and elasticity tests, sensitiveness test, blood perfusion tests.
17. Instrumental diagnostics of skin.

18. Individual cosmetic care of different types of skin: stages, forms, regimens.
19. Medical and professional cosmetics in cosmetological practice: forms, BAS, assortment.
20. Manual methods in cosmetology: compresses, masks, manual comedo extraction, cosmetic massage.
21. Peels: classification, general description, indications, contraindications.
22. Algotherapy, clay treatment, pelotherapy, thalassotherapy in cosmetology.
23. Hydrotherapy, stone therapy, SPA-therapy.
24. Aromatherapy in cosmetology.
25. Epilation and depilation: determination, classification, indications and contraindications.
26. Apparatus methods in medical cosmetology: classification, description, common indications and contra-indications.
27. Electrotherapy in cosmetology.
28. Pressure therapy in cosmetology.
29. Ultrasound therapy in cosmetology.
30. Mechanical apparatus methods in cosmetology.
31. Phototherapy in cosmetology: classification, description, indications and contraindications.
32. Thermootherapy in cosmetology: classification, indications and contraindications.
33. The general description of injection methods in medical cosmetology.
34. Mesotherapy: description of method, types of mesotherapy, indications and contra-indications, assortment of preparations for mesotherapy.
35. Aesthetic using of botulinum toxin (BT): description of method, indications and contra-indications, assortment of BT drugs in medical cosmetology.
36. Facial implants and fillers: description of method, indications and contra-indications, assortment of preparations.
37. The dermato-surgical methods in medical cosmetology: general description.
38. Electrocoagulation, cryodestruction, selective photothermolysis: description of methods, indications and contra-indications.
39. Laser peel, radio waving therapy: description of methods, indications and contra-indications.
40. Dermabrasion and microdermabrasion: description of methods, indications and contra-indications.
41. Laser epilation and photo epilation: description of method, indications and contra-indications.
42. Surgical methods in medical cosmetology: general description, indications and contra-indications.
43. Blepharoplasty, rhinoplasty, otoplasty, rhytidectomy: description of methods, indications and contra-indications.

44. Liposuction, mammoplasty, abdominoplasty: description of methods, indications and contra-indications.
45. Aging of skin: definition, etiology, pathogenesis, factors, classification.
46. Basic theories of skin aging.
47. Clinical presentation of chronaging.
48. Clinical presentation of photo aging.
49. Clinical presentation of hormonal aging.
50. Types of facial skin aging, types of wrinkles.
51. Differential diagnosis of different types of skin aging.
52. Cosmetologic facilities and methods of skin ageing correction.
53. Dyschromias : determination, factors, classification.
54. Melanogenesis in a skin: localization, stages, biochemical aspects.
55. Hypomelanosis: etiopathogenesis, classification, clinical presentation.
56. Differential diagnosis of hypomelanosis.
57. Treatment of hypomelanosis in cosmetological clinic.
58. Hypermelanosis: etiopathogenesis, classification, clinical presentation.
59. Differential diagnosis of hypermelanosis.
60. Treatment of hypermelanosis in cosmetological clinic.
61. Sensitive skin: determination, factors, classification.
62. Etiopathogenesis of sensitive skin.
63. Clinical presentation of different types of sensitive skin.
64. Differential diagnosis of different types of sensitive skin.
65. Cosmetologic correction of sensitive skin.
66. Dry skin: determination, factors, classification.
67. Etiopathogenesis of dry skin.
68. Clinical presentation of different dry skin types.
69. Differential diagnosis of different types of dry skin.
70. Cosmetological methods of treatment of dry skin.
71. Erythro couperose: determination, factors, classification.
72. Etiopathogenesis of erythro couperose.
73. Clinical presentation of erythro couperose.
74. Differential diagnosis of erythro couperose.
75. Cosmetological methods of treatment of erythro couperose.
76. Scars: determination, general description, pathogenesis.
77. Risk factors for scars and keloids
78. Classification of scars.
79. Striae: etiopathogenesis, classification, clinical presentation.
80. Physiological cosmetic scars: etiopathogenesis, classification, clinical presentation.
81. Pathological scars: etiopathogenesis, classification, pathomorphology, clinical presentation.

82. Differential diagnostics of keloid and hypertrophy scar.
83. Cosmetic facilities and methods of prophylaxis and treatment of scars.
84. Cosmetic facilities and methods of prophylaxis and correction of striae.
85. Cellulite: determination, general description, risk factors, pathogenesis.
86. Classification of cellulite and its clinical presentation.
87. Diagnostics of cellulite, differential diagnosis between cellulite and obesity.
88. Cosmetic facilities and methods of cellulite treatment.
89. Seborrhea: definition, etiopathogenesis, classification.
90. Clinical presentation of seborrhea.
91. Cosmetic facilities and methods of seborrhea treatment.
92. Seborrheic dermatitis: clinical presentation, cosmetic facilities and methods of treatment.
93. Rosacea: definition, etiopathogenesis, triggers.
94. Classification and clinical presentation of rosacea.
95. Cosmetic facilities and methods of rosacea treatment.
96. Perioral dermatitis: definition, etiopathogenesis, triggers.
97. Classification and clinical presentation of perioral dermatitis.
98. Cosmetic facilities and methods of perioral dermatitis treatment.
99. Acne disease: definition, triggering factors.
100. Etiopathogenesis of acne.
101. Classification and clinical presentation of different types of acne disease.
102. Classification and clinical presentation of acne juveniles.
103. Clinical presentation of postacne.
104. Cosmetic facilities and methods for acne and postacne treatment.
105. Alopecia: definition, classification.
106. Scarring alopecia: etiopathogenesis, classification, clinical presentation.
107. Non-scarring alopecia: etiopathogenesis, classification.
108. Focal alopecia: definition, etiopathogenesis, clinical presentation, clinical types, severity degrees.
109. Cosmetic facilities and methods of focal alopecia treatment.
110. Androgenetic alopecia: definition, etiopathogenesis.
111. Androgenetic alopecia clinical presentation in men.
112. Androgenetic alopecia clinical presentation in women.
113. Cosmetic facilities and methods of androgenetic alopecia treatment.
114. Diffuse alopecia: definition, classification, etiopathogenesis.
115. Telogen effluvium: classification, triggering factors, clinical presentation.
116. Cosmetic facilities and methods of telogen effluvium treatment.
117. Anagen effluvium: triggering factors, clinical presentation.
118. Jatrogenic alopecia: types, causes, preventive measures.
  1. Hirsutism: etiopathogenesis, classification, clinical presentation, cosmetic facilities and methods of treatment.

2. Hypertrichosis: etiopathogenesis, classification, clinical presentation, cosmetic facilities and methods of treatment.
3. Follicle dystrophy: etiopathogenesis, classification.
4. Inherited follicle dystrophy: clinical presentation, cosmetic facilities and methods of treatment.
5. Acquired follicle dystrophy: clinical presentation, cosmetic facilities and methods of treatment.
6. Iatrogenic follicle dystrophy: clinical presentation, cosmetic facilities and methods of treatment.
119. Hyperkeratosis of scalp: clinical presentation, cosmetic facilities and methods of treatment.
120. Basic complications in cosmetology.
121. Iatrogenic dermatitis in cosmetic practice: reasons, risk factors, risk groups, prophylaxis, treatment.
122. Iatrogenic infections in cosmetic practice: reasons, risk factors, risk groups, prophylaxis, treatment.
123. Scars as a result of cosmetic manipulations: reasons, risk factors, risk groups, prophylaxis, treatment.
124. Iatrogenic dyschromia in cosmetology: reasons, risk factors, risk groups, prophylaxis, treatment.
125. Hemorrhages as a complication after cosmetic manipulation: reasons, risk factors, risk groups, prophylaxis, treatment.
126. Other complications after cosmetological treatment: reasons, risk factors, risk groups, prophylaxis, treatment.

## **PRACTICAL SKILLS AND TASKS FOR FINAL MODULE CONTROL**

1. Make cosmetological examination of skin and its derivatives.
2. Define skin types according to character of sebum secretion and elasticity.
3. Differentiate skin types and make out individual cosmetic care for different skin types.
4. Define groups of skin and its derivatives diseases that need to be treated in cosmetological hospital.
5. Detect cosmetological pathology of skin and its derivatives.
6. Differentiate and characterize cosmetological pathology of skin and its derivatives.
7. Give the consultative medical aid about prevention and treatment of the most spread cosmetic pathology of skin and its derivatives.
8. Give the consultative medical aid related prevention of complications after cosmetological treatment.

## Literature

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6. Burgess Cheryl M. Cosmetic Dermatology Springer / Cheryl M. Burgess. – Verlag Berlin Heidelberg, 2005. – 170 p.
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11. Rejuvenation. – UK : Informa, 2007. – 120 p.
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*Навчальне видання*

# **Медицина косметологія**

## **Модуль 1**

***Методичні вказівки для студентів  
медичного факультету  
4-го року навчання англійською мовою***

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# **Медична косметологія**

## **Модуль 1**

*Методичні вказівки для студентів  
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