

**Ministry of health of Ukraine
Higher state educational establishment of Ukraine
«Ukrainian medical stomatological academy»**



«Approved»

At the sitting of the chair of oncology
The minutes №2 from September 2,
2018y. Manager of chair of oncology
MD, professor V.P.Bashtan

**METHODICAL POINTING
FOR INDEPENDENT WORK OF STUDENTS
DURING PREPARATION TO PRACTICAL EMPLOYMENT**

<i>Educational discipline</i>	<i>Oncology</i>
<i>Module №</i>	<i>I</i>
<i>Rich in content module №</i>	<i>I</i>
<i>Theme of employment</i>	Lip cancer
<i>Course</i>	<i>V</i>
<i>Faculty</i>	<i>Medical №1, №2</i>

Poltava - 2018

Theme: “Cancer of lip”

Amount of hours – 2 educational hours.

1. Actuality of theme.

The cancer of lower lip more frequent arises up at persons which test the protracted influencing of atmospheric factors, such as change of humidity, temperature, protracted insolation smoking of tobacco, especially tubes, chronic trauma lips. The cancer of lip is this disease which strikes the red framing of lip, spreading on other anatomic structures organs of person and cavity of mouth. One of the most widespread diseases of head and neck, strikes people both sloping and fully capable of working age.

Most tumors of lip develop from the integumentary epithelium of red round lips and conclusions channels of and salivary oil-glands, that is in their layer. Among the of high qualities tumors of lip more frequent in all a papilloma and keratocanthoma happen.

A doctor above all things, can find out this pathology when patients speak to him on an occasion the disease of teeth, because knowledge of this section obligatory for the study by the students of medical faculties.

2. Educational aims of employment.

To know (a – II):

- epidemiology etiology and pathogeny of cancer of lip;
- precancer diseases of lip;
- methods of diagnostics of cancer of lip;
- classification of cancer of lip domestic and by system of TNM;
- clinical picture of disease;
- principles of treatment:
 - a) rediation;
 - b) surgical;
 - c) combined;
- terms of clinical supervision of patients after radical treatment of cancer of lip;
- prophylaxis of cancer of lip;
- risk factors.

To be able (a = III):

- to discover and treat the precancer diseases of lip;
- to conduct differential diagnostics;
- brothers material for morphological research:
 - a) cytological;
 - b) leadthrough of biopsy;
- to estimate possible complications, be able them to prevent;
- to set a labour prognosis level of loss of capacity;

3. Materials to audience independent work.

3.1. Practical skills on a theme:

1. Chillorscopy.
2. Palpation research of lip and regional lymphonoduss.
3. Taking of material for cytological research.
4. Puncture of lymphonoduss.
5. To be able to formulate the diagnosis of malignant new formation of lip.
6. Taking plan of treatment.
7. To design a medical document.

Terminology

English	Russian	Latin
Tumor, new formation	Опухоль	Tumor
Malignant tumor	Злокачественная опухоль	Tumor malignum
Cancer of lower lip	Рак нижней губы	Cancer labii inferior
First stage	Первая стадия	Gradus prima
Cancer in place	Рак на месте	Cancer in situ
Metastasis	Метастаз	Metastasis
Submatillary lymphonodus	Подчелюстной лимфоузел	Lymphonodulus submandibularis
Metastasis in mental lymphonodus	Метастаз в подбородочный лимфоузел	Metastasis in L. n. submentalis
Continuation of disease	Продолжение заболевания	Prolongatio morbi

Interdisciplinary integration (base knowledges, abilities, skills necessary for the study of theme)

Disciplines	To know	To be able
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Anatomy	Anatomy, blood supply and lymphatic system of lip.	To estimate the results of cytological and histological researches of biopsy. To estimate the results of functional tests, radioisotope research indexes biochemical and clinical blood and urine tests. To conduct physical and clinical inspection of patients with the cancer of lip. To execute the biopsy of peripheral metastases lymphonoduss.
Histology	Structure of epithelium of lip (amount of layers, rows, their original appearance basale membrane)	
Surgery	General principles of surgical interference.	
Pathoanatomy	Histological structure of tumors of lip.	
General physiology	Physiology meaning of lip, as organ.	
Therapy	Methods of common inspection of patients.	
Stomatology	Special methods of inspection of patients.	

3.2. Table of contents of theme of employment

Epidemiology.

The cancer of lip arises up in the area of the red framing of lip. IN 90 – 95 % patients a tumour will strike a lower lip (90% patients are men). The cancer of lip meets mainly at people 40 – 60 years, however can be observed and at junior and more old patients. Morbidity on the cancer of lower lip in Ukraine is 4,1 on 100 thousands of population.

Etiology.

The cancer of lower lip more frequent arises up at persons which test the protracted influencing of atmospheric factors and chronic trauma:

- protracted insolation;
- chapping;
- change of humidity and temperature;
- chronic trauma lips by carious teeth and wrong made prosthetic appliances;
- small burn;
- chronic trauma as a result of smoking of tobacco;
- viral infection and other

Pathogeny.

The processes of cornification, that results in the origin of the precancers state are violated in investigation of degeneration-proliferation changes of cells of horny layer of epithelium of lip.

In obedience to classification precancerosis of lip is:

- precancer abrasive chilitis Manganotie's;
- local hyperkeratinization of the red framing of lip;
- warty precancer of the red framing of lip;
- Bouen's illness .

Among optional precancers have higher authenticity of malignan:

- papilloma;
- erosive and warty forms of leukoplakia;
- skinning horn keratoakanthoma and other;
- chronic chilitis;
- erosive and hyperkeratotic form of red lupus and flat lichen;
- chronic ulcers and cracks of lip at the protracted existence and absence of adequate treatment also can become the reason of origin of cancer.

Pathoanatomy.

The cancer of lower lip develops from the much layers flat epithelium of the red framing and in future can spread on a mucus shell and skin. Swingeing majority of tumors of lip (80% - 95%) is squamous cancer with the cornification, about 4% - 18% supervisions are on forms without the cornification, very rarely – basalioma cell and undifferentiated cancer. More malignant flow of illness is observed at the squamous form of cells without the cornification. Most aggressive – at undifferentiated forms.

For the cancer of lip the lymphogenic metastases is characteristic, remote metastases are observed rarely. It is the first stage of metastase of cancer of lip submentum and submatillary lymphonoduss, by the second stage are deep neck lymphonoduss (retromandibular, along the internal jugular vein of carotid), by the III stage are supraclavicular.

Classification.

Depending on prevalence of tumor process domestic classification foresees the division of cancer of lip on 4 stages:

- I is the limited tumor or ulcer size to 1,5cm, limited by a mucus shell or submucous layer of the red framing, without metastases;
- IIa is a tumor or ulcer limited by a mucus shell or submucous layer of the red framing more than 1,5 cm, but no more than half of lip, without metastases;
- IIb is tumor or ulcer of the same or less sizes, but at presence of metastases in 1-2 mobile regional lymphonoduss;

- IIIa is a tumor or ulcer, that occupies more greater part of lip, with the germination in its thickness or distribution on the corner of mouth, cheek, soft fabrics of chin, without metastases;
- IIIb is tumor or ulcer of the same sizes or less widespread, however with a presence limitedly mobile regional metastases;
- IV is a tumor occupies more greater part of lip with the germination of all thickness and distribution on bone fabric of jaw, with metastases in immobile regional lymphonoduss, or any sizes tumor with remote metastases.

Classification of cancers of lip
(codes of MKX – Oh C00; C02 - 06) by system of TNM (5th edition, 1997 year)
Anatomic sections and subsections

Lip

- | | |
|--|---------|
| 1. External surface of overhead lip (red border) | – C00.0 |
| 2. External surface of lower lip (red border) | – C00.1 |
| 3. Commissures of lip | – C00.6 |

TNM Clinical classification

T is a primary tumor

Tx — it is not enough information for estimation of primary tumor

T0 is a primary tumor does not concerne

Tis is preinvasive cancer (cancer in situ)

T1 is tumor of to 2cm in most measuring

T2 is tumor of to 4cm in most measuring

T3 is tumor over 4cm in most measuring

T4 is tumor spreads on contiguous structures (for example, cortical layer bones, lower alveolar nerve, bottom of mouth cavity, skin of face).

N is regional lymphatic nodes

Nx _ it is not enough information for estimation of the state of regional lymphatic nodes

N₀ _ there are no signs of defeat of regional lymphatic nodes

N₁ metastases in one homolateral lymphatic node of to 3cm in most measuring

N₂ metastases in one homolateral lymphatic node of to 6cm in most measuring, either numeral metastases in homolateral lymphatic nodes, none of which exceeds 6cm in most measuring, either bilateral or contralateral lymphatic nodes measuring to 6cm in most measuring

N_{2a} metastasis in the homolateral lymphatic node of to 6cm in most measuring

N_{2b} are numeral metastases in homolateral lymphatic nodes, none of which exceeds 6cm in most measuring

N_{2c} — bilateral or contralateral metastases lymphatic nodes measuring to 6cm in most measuring

N₃ are metastases in lymphatic nodes by a size over 6cm in most measuring

Note: lymphatic nodes on the middle line of body homo is considered lateral.

M is remote metastases

Mx — it is not enough information for the exposure of remote metastases

M0 are remote metastases do not concerne

M1 is present remote metastases

pTNM pathomorphology classification

The categories of pT, pN, pM answer the categories of T, N and M

pN0 it is Material for histological research after selective neck regional lymphadenectomy must include not less than 6 lymphatic nodes. Material for histological research after radical or modified radical neck lymphadenectomy must include not less than 10 lymphatic nodes.

G - histological gradation

Gx is degree of differentiation of tumor can not be certain

G1 it is the high degree of differentiation

G2 it is the middle degree of differentiation

G3 it is the low degree of differentiation

G4 it is the undifferentiated tumor

Groupment after stages

Stage 0	Tis	N ₀	M0
Stage And	T1	N ₀	M0
Stage II	T2	N ₀	M0
Stage III	T3	N ₀	M0
	T1	N ₁	M0
	T2	N ₁	M0
	T3	N ₁	M0
Stage of IVA	T4	N ₀	M0
	T4	N ₁	M0
	any pT	N ₂	M0
Stage of IVB	any pT	N ₃	M0
Stage of IVC	any pT	any N	M1

Clinic.

The clinical displays of cancer of lip are varied enough. Distinguish exophytic and endophytic types of growth of tumor. Papillary and warty forms belong to exophytic, **to endophytic are** ulcerous and ulcer-infiltrative forms. Exophytic forms arise up on a background papillomas, limited local hyperkeratinization. Endophytic forms arise up on a background chilitis Manganotti's and other destructive dyskeratosiss. Motion of endophytic forms of cancer is more aggressive. An ulcerous form is characterized by the gradual deepening of ulcerous surface, the bottom of ulcer becomes unequal, form – wrong, edges are enhanceable, infiltrate, due to what an ulcer looks like crateriform. An ulcer is painless at first, but pain appears as a result of joining of the inflammatory phenomena.

At the ulcer-infiltrative forms of cancer of lip the area of infiltration considerably exceeds the area of destruction and has dense consistency.

It follows to underline that the early symptoms of cancer of lip are barely visible and they are usually lost on a background an existent precancer process. Strengthening of destructive process and appearance of infiltrate can be the sign of malignant. Usually the hard compression which reminds a scab appears on verge of the red framing and skin. After the removal of horny the masses a rose surface takes all off clothes with shallow baby's dummies covered by a lymph and drops of blood. A scab can fall off independently, in course of time recommencing. Rate of growth of tumors from slow to rapid distribution on all lip, more intensive at the endophytic forms of cancer. In more late periods of both exophytic and endophytic forms of cancer of lip, making progress, certainly result in the origin of infiltrative-ulcerous forms, that is accompanied by formation of large defects lips, corner company chin with transition on a lower jaw. The considerable inflammatory phenomena join on this stage of development of illness. The state of such sick sharply gets worse and they perish from exhaustion, added pneumonia or from bleeding from a tumor, that disintegrates.

Diagnostics.

Diagnosis of cancer of lower lip base on information of review both with naked an eye and from application of chiloscopy. These methods enable to find out character and depth of ulcer, see the roller of infiltration round the ulcerous form of cancer, to define the state of surrounding mucus shell which the cell of new formation was on a background. Applications of the viable painting by a 1% water solution of toluidine of dark blue enable to see areas suspicious on malignant (the areas of pre-tumors formation remain unpainted out, and the cell of cancer fix a dark blue color).

Palpation of lip through all its thickness is carried out by and indicatory pollexs, that gives to define possibility the real sizes of tumor. It follows to conduct palpation of regional lymphonoduss simultaneously with both sides. At suspicion on the cancer of lip necessarily it follows to conduct cytological research of smear-imprints from a tumor ulcer: a pathological area clears up from crusts, necrotizing raid, whereupon material undertakes for cytological research; it is explored also puncture regional lymphonoduss. Desirably to execute a biopsy in the conditions of oncology dispensary.

Cancer of lip on the initial stages of development it is necessary to differentiate with precanceroses, herpetic chilitis, tuberculosis and syphilis. A tubercular ulcer is very sickly, flat, has round itself hyperemia; at a syphilitic ulcer gummotons edges and “greasy” bottom. However final morphological and bacteriological information matter, for syphilis are serum reactions.

Treatment.

Before the beginning of treatment of patients it follows to satisfy of necessity will halt smoking of tobacco and to conduct sanative of cavity of mouth. For the choice of method of treatment a stage, clinical and morphological form of tumor, is taken into account.

The I stage is treatment mainly radial (short-distance roentgenotherapy by a total hearth dose to 70gr). In the case of radioresistance cancer apply surgical treatment: wide rectangular, trapezespecific (but not wedgespecific) electro-carving with the plastic closing of defect. Possible application of cryosurgical methods. Lymphatic nodes do not delete in the I stage.

II stage – for treatment of primary hearth also apply short-distance roentgenotherapy by the total hearth dose of to 70 gr. At the single displaced regional metastases (IIb stage) – operation of Vanacha or its modifications is executed (overhead neck lumphadenectomy).

III stage is treatment of primary tumor radial or it is combined. Controlled from distance gamma-therapy as an independent method is conducted to the total dose 60 gr. On occasion the controlled from distance gamma-therapy after achievement 40-45gr can be complemented by short-distance roentgenotherapy or interstitial therapy of gamma to the general total local dose 60-65 gr. At a IIIa stage operation of Vanacha is executed after I or the II variant with a prophylactic purpose. It is

combined At the IIIb stage of treatment of regional metastases. Controlled from distance gamma-therapy by a total hearth dose 40gr on the areas of regional metastases executes simultaneously with the leadthrough of radial therapy of primary hearth. Directly after curing of primary tumor the fascia-tight delete of fat tissue is executed necks or operation of Krayla.

IV stage – in default of the remote or plural undisplaced regional metastases fully justified attempt of the combined treatment: leadthrough of the preoperative controlled from distance gamma-therapy in combination with the extended and combined operations with the wide delete of lower lip, frontal department of lower jaw bottom of cavity of mouth, and also bilateral delete of fat tissue with the lymphonoduss of areas of metastases. With a palliative purpose possible leadthrough of gamma-therapy of to 40 gr. At bleeding the rotined bandaging of external carotids. Sometimes considerable regression of tumor succeeds to be attained after the leadthrough of endarterial regional chemotherapy (metotrexat, bliomicin).

At the relapses of cancer of lip after radial therapy it is rotined wide – not less than 2 – 3 cm from a tumor is electrosurgical delete or cryosurgery.

Prognosis.

A prognosis depends on the stage of disease, features of histological structure of tumor, timeliness and adequacy of treatment. The proof curing at all stages of disease makes 50%-70%. At I - the II stages the five-year survival is observed in 90% patients. Less favourable motion is observed at the forms of cancer without the cornification and, especially at the littledifferentiated cancer.

COUNT OF LOGICAL STRUCTURE ON THEME: “Lip cancer”

1. Specialized oncologic help (look addition №1)

2. Prophylactics inspections

- Collection of complaints
- Collection of anamnesis of disease and life
- Review of skin and visible mucuses shells
- Palpation of peripheral lymphatic nodes
- Palpation of thyroid

3. Current oncologic document

- F № 090/U
- F № 027/U
- F № 066/U
- F № U-30/6

4. Clinical groups in oncology

- I - A
- I - B
- II - A
- II - B
- III
- IV

5. Clinical classification on to the stages

6. Classification on the system of TNM

7. Groups of enhanceable risk in oncology

8. Social and labour rehabilitation of oncologic patients

3.3. RECOMMENDED LITERATURE:

a) Basic

1. Oncology / [Edited by prof. I.B.Shepotin, prof. R.T.Evans]. – Kiev: Medicine, 2008. – 496 p.
2. Clinical oncology / [V.Sorkin, A.Popovich, Yu. Dumanskiy and oth.]; under the edit. of the prof. G.V.Bondar. – Simferopol, 2008. – 192 p.

b) Additional

1. Ain KB: Anaplastic thyroid carcinoma: a therapeutic challenge. Semin Surg Oncol 1999; 16: 64-69.
2. Scully C, Field JK, Tanzawa H: Genetic aberrations in oral or head and neck squamous cell carcinoma (SCCHN): 1. Carcinogen metabolism, DNA repair and cell cycle control. Oral Oncol 2000 May; 36 (3): 256-63.

3.5. Materials for self-control.

A. Questions for self-control.

1. Frequency of defeat by the cancer of lip.
2. Precancers diseases of lips.
3. Etiology and pathogeny of lip cancer.
4. Histological structure of lip cancer.
5. Classification of lip cancer lip, after stages.
6. Clinical stages of lip cancer by system of TNM.
7. Principles of treatment of patients with the cancer of lip depending on the stage of disease.
8. Remote results of treatment of patients with the cancer of lip.

B. Tests initial level of knowledges

1. Which forms of precancers disease belong to obligate?
 - a) abrasive precancer chilitis Manganotie's;
 - b) simple leukoplakia;
 - c) chronic crack of lip;
 - d) red flat lichen.
2. What histological forms of cancer of lip meet more frequent in all:
 - a) nonreratinizing type of squamous cell cancer;
 - b) keratinizing of squamous cell cancer;
 - c) basal cell cancer;
 - d) undifferentiated cancer.
3. What stages of cancer of lip are considered neglected:
 - a) any stage with the presence of regional metastases;
 - b) only a IV stage;
 - c) III and IV stage;
 - d) only the IV stage with the presence of remote metastases.
4. Specify the optimum method of treatment of lip cancer T1N0M0.
 - a) resection of lower lip;
 - b) cyrotherapy;
 - c) short-distance roentegenotherapy;
 - d) regional chemotherapy.
5. Testimony for the leadthrough of operation of Krayla.
 - a) presence of metastases in submaxillary lymphonoduss;
 - b) presence of a few (to 3) displaced, mobile overhead neck lymphonoduss;
 - c) presence of a few undisplaced, immobile overhead neck lymphonoduss;
 - d) operation is executed with a prophylactic purpose by all patient, beginning of lip cancer from a II stage.
6. To precancers of lower lip take:
 - a) local and diffuse hyperkeratinization;
 - b) abrasive precancer chilitis Manganatie's;
 - c) leukoplakia;
 - d) skinning horn;
 - e) keratoacanthoma;
 - f) erythroplakia;
 - g) papilloma;
 - h) correctly all transferred;
 - i) correctly all transferred, except for 5,6;
 - j) correctly all transferred, except for 1,2,6;

- k) correctly all transferred, except for 3,5,6;
- l) correctly all transferred, except for 2,3,4;

7. Frequency of cancer of lower lip has:

- a) tendency to growth;
- b) remains at that level;
- c) tendency to diminishing.

8. To the factors which are instrumental in the origin of cancer of lower lip, take:

- a) smoking;
- b) trauma;
- c) contact with connections of arsenic;
- d) radial energy;
- e) climatic terms;
- f) endogenous factors;
- g) correctly all transferred, except for 2,3;
- h) correctly all transferred, except for 5,6;
- i) correctly all transferred, except for 2,4;
- j) correctly all transferred, except for 2,4,6;
- k) correctly all.

9. Cryolysis of primary tumor of lower lip to make use of:

- a) at I stages;
- b) at a IIa stage;
- c) at a IIb stage;
- d) at the relapse of tumor;
- e) at all transferred stages.

10. Operation of Vanach preventively there is sense to execute at the cancer of lower lip:

- a) IIb stage;
- b) IIIb stage;
- c) IVa stage;
- d) IVb stage;
- e) all answers are correct.

C. Situations tasks for self-control.

1. To Patient of III., 56 years, clinically set diagnosis: Cancer of lower lip.

1. What morphological picture characteristic for cancer of this localization?
2. What obligate precancers processes are observed on the red framing of lip?
3. What morphological methods of research must be conducted for verification of process?

2. Sick K., 45 years, on speciality fitter-spider-man, appealed for a doctor-stomatology with a complaint in the presence of crack of lower lip that exists near 4 months. Without regard to application of soft creams, a crack does not heal over. Work out a plan of inspection and treatment of patient.
3. Doctor-stomatology of polyclinic discovered at the sick defeat of lower lip, suspicious on a cancer.
 1. What clinical group does a patient belong to?
 2. What subsequent tactic of doctor-stomatology?
4. At a patient squamous cell cancer of lower lip T1N0M0. Work out an optimum plan of treatment of patient.
5. To Patient of II, 54p., on an occasion precancer chilitis Manganotie's treatment by the appliques of vitamin of "A" was unsuccessfully conducted. Where a patient and what treatment must treat oneself is it needed to apply? What clinical group is it necessary to bring a patient to?
6. During what prophylactic review on an enterprise at sick Л., 49p., it is found out malignant new formation of lower lip of a III stage. What documents does it follow to process on found out a patient?
7. At the patient III., 55p., in the center of lower lip there is an ulcer 2cm in a diameter, with tuberosity edges, there is infiltration of fabrics which surround an ulcer. Diagnose previous? In what lymphatic nodes possible metastases? Define a stage disease and plan of treatment of patient.
8. In a stomatological clinic a patient appealed Is., 58 years, with complaints in the presence of ulcer on a lower lip which he found out to that. It is set during a review, that ulcer on the red framing business, within the limits of mucus shell and submucous layer of oval form, 1,4 on 0,6cm, with tuberosity edges, littersickly, inferior fabrics infiltrate. In an area right under submaxillary a painless, dense, mobile lymphonodus concerns diameter to 1,5sm. Diagnose previous. In what lymphatic nodes possible metastases? What auxiliary methods of inspection need to be conducted? Define a stage disease, clinical group and plan of treatment of patient.
9. At the patient Л., 59y., a diagnosis is set: cancer of lower lip, IIb stage, II cl.gr., In three weeks upon termination of complete course of short-distance roentgenotherapy on a primary hearth complete regression of tumor is marked with epithelisation of area of irradiation. What plan of treatment of patient?
10. At the patient Л., 57y., after conducted short-distance roentgenotherapy by a total local dose 70g on an occasion the cancer of lower lip (IIa gr.), in 2 months upon termination of roentgenotherapy on the red framing of lower lip there is the ulcer of

to 0.5cm with a infiltrate bottom. Diagnose previous? Define tactic of inspection and treatment of patient?

9. Materials of after auditorium independent work.

Subject : Study of indexes of morbidity and death rate on a cancer in the Poltava region.

Subject : Study of possible dependence of increase of level of morbidity on a cancer in the Poltava region from contamination of external environment.

Methodical development is revised and ratified on meeting of department of oncology.

MD., professor

P.V.Scheleshko