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**СИТУАЦИОННЫЕ ЗАДАЧИ
ПО ОТОРИНОЛАРИНГОЛОГИИ**

*для студентов факультета иностранных учащихся, обучающихся на английском
языке*

Situational tasks

In Otorhinolaryngology

Medical Faculty for International Students

(in English)

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Situational tasks cover the whole pathology of the ear, nose, pharynx and larynx: inflammatory diseases and their complications, traumas, foreign bodies, tumors, specific and functional diseases. This material is intended for the development of clinical thinking in students. The volume of material corresponds to the content of the program on Otorhinolaryngology and to the discipline itself. The solutions to situational tasks will be used by students of medical departments for self-study and assessment of their level of knowledge in Otorhinolaryngology at seminars and the final test.

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CHAPTER 1

THE SCHEME FOR SOLVING A SITUATIONAL TASK

A patient complains of occasional difficulty in nasal breathing, which worsens during exposure to cold and is accompanied by moderate viscous colorless discharge from the nose. Nasal bilateral breathing disorders occur in a supine position. In a lateral position the patient feels breathing difficulties from the side on which he is lying. Twice a year, a significant difficulty in nasal breathing is observed, accompanied by severe viscous purulent discharge from the nose and headache, associated with supercooling. Four years ago he went to the doctor, who diagnosed "chronic rhinitis" and recommended naphthizin solution nose-drops. The patient felt a relief in nasal breathing, but some time later the abovementioned symptoms returned. The patient had pneumonia in the anamnesis. At present the patient is observed by a proctologist due to spastic colitis.

The general condition is satisfactory. Temperature is 36.7° C. Pathological changes of the internal organs are not found. Visual examination and palpation of ENT organs didn't show the signs of pathology. Hearing: whispered speech is AD - 6m, AS - 6m. Mucous membranes of the nose are hyperemic and edematous. There is a small amount of mucus in the nasal passage. Respiratory nose function is affected. Olfaction is reduced. Nasal breathing improved after the introduction of 5 drops of adrenaline to the two halves of the nose. Edema and redness of the nasal mucous membrane is decreased.

How to solve a situational task?

1. Establish and ground a preliminary diagnosis.
2. Give a list of diseases for a differential diagnosis.
3. Make a differential diagnosis with these diseases:
 - 3.1 Transfer etiology (main, predisposing factors), pathogenesis and disease symptoms described in situation tasks (every symptom and special features of its manifestation) to the 1st column of the differential diagnostic table.

3.2 In the 2nd column indicate the signs of pathological processes, with which a differential diagnosis should be performed. Use the sign "+" to mark common symptoms. If they differ from similar symptoms in the task, specify how it is manifested. Use the sign "-" to mark different symptoms. Write down other signs typical for these diseases which distinguish them from the etiology, pathogenesis and clinical manifestations described in a situational task.

4. Establish the final diagnosis.

5. If there is a need in further examination for the establishment of the final diagnosis specify and ground:

5.1 The examination plan using clinical, additional and special (ENT) methods.

5.2 The necessity and purpose of engaging consultants.

6. Prescribe and ground the treatment for a patient.

6.1 Working capacity examination

6.2 Regime activities.

6.3 Pathogenic, symptomatic and restorative therapy. Write a prescription indicating the drugs used, prescribe physiotherapy pointing the name, number of procedures and the area of impacts. If surgery is required specify its name and principle.

7. If a patient had applied for a medical assistance earlier, indicate:

7.1 Whether the diagnosis was correct? If no, what were the reasons?

7.2 Whether the adequate treatment had been performed? If no, what was the mistake?

Solving of situational task.

1. The preliminary diagnosis can be established on the basis of subjective symptoms: duration of the disease, periodic difficulties in nasal breathing, more evident and varying depending on the head position, mucous nasal discharge, periodic exacerbations characterized by significant nasal congestion, abundant viscous discharge, and objective symptoms: hyperemia and swelling of the nasal mucosa and their significant reduction after anemisation, which leads to improvement of nasal breathing. The preliminary diagnosis is "Chronic catarrhal rhinitis".

2. Acute rhinitis, chronic hypertrophic rhinitis, chronic atrophic rhinitis (allergic and neuro-reflex forms), chronic sinusitis, etc.

3. See the table of differential diagnosis

4. The final diagnosis is "Chronic catarrhal rhinitis"

5. A patient needs additional examination.

5.1 X-ray of the paranasal sinuses to exclude sinusitis.

5.2 ENT consultation.

6. Treatment of chronic catarrhal rhinitis:

6.1 Is able to work

6.2 Outpatient care

6.3 Rp.: Sol. Protargoli 3%-20,0

D.S 5 drops 3 times a day in both halves of the nose for 10-12 days.

Rp.: Sol. Argenti nitratis 3%-20,0

D.S. Lubricate the nasal mucosa for 10-12 days.

UHF on the nose №8.

Resort treatment in dry and warm climate.

Continue the treatment at proctologist.

7. The clinical form of chronic rhinitis is not indicated.

Vasoconstrictor drops have only symptomatic effect. You can not use them for a long time, because they disturb the vasomotor function, which is impaired in chronic catarrhal rhinitis.

Table of differential diagnosis

Etiology Pathogenesis Symptoms	Chronic catarrhal rhinitis	Acute rhinitis	Chronic hypertrophic rhinitis
Etiology	Activation of nasal cavity microflora		
Predisposing cause	Spastic colitis	Decrease of general and local reactivity (colds, infections)	Local circulatory disorders (diseases: cardiovascular, renal, intestinal, ginetal, recurrent acute rhinitis, sinusitis, adenoids). Unfavorable environmental factors.
Peculiarities of the disease course	Chronic with exacerbations	Acute	+
Symptoms	<ul style="list-style-type: none">• Difficulty of nasal breathing• Recurring	+ Slowly improving	+ Permanent

	<ul style="list-style-type: none"> • Increases in the cold • When patient changes the body position • Increased nasal discharge during exacerbation • Mucous nasal discharge • Mild discharge • After vasoconstrictive drops into the nose breathing temporarily improves • Nasal mucosa is swollen • Hyperemia of the mucosa is observed • Temperature is normal • There is a small amount of mucus in the nasal cavity • Olfaction is not impaired • Hearing is normal • Breathing function is disturbed 	<p style="text-align: center;">+</p> <p style="text-align: center;">-</p> <p style="text-align: center;">+</p> <p>Character of discharge depends on the stage</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p>May be sub febrile</p> <p style="text-align: center;">+</p> <p>Temporary hyposmia Temporary hearing loss</p> <p style="text-align: center;">+</p>	<p style="text-align: center;">-</p> <p style="text-align: center;">-</p> <p style="text-align: center;">+</p> <p>Mucous, mucopurulent</p> <p>Profuse</p> <p>Breathing is not improved</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p>Significant amount</p> <p>Often hyposmia, possible anosmia Hearing is often reduced</p> <p style="text-align: center;">+</p>
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CHAPTER 2

DISEASES OF THE NOSE

Task 1

A patient complains of swelling, redness and pain in the left side of the nose, fever is up to 38⁰C. Pain spreads to the teeth, temple and left orbit. Patient fall ill after catching a cold 3 days ago.

Local swelling of red color with abscess in the center on the left part of the nose is observed. There is swelling of the left lower eyelid. Breathing through the nose is free. There is mucus in the nasal passages.

Task 2

A patient, 32 years old, complains of difficulty in nasal breathing, clear discharge from the nose, olfactory disorder, sneezing and lacrimation. These symptoms have been disturbing the patient for the past two years, since she started working in the chemical industry.

Nasal mucosa is swollen, pale, with blue and white spots. Nasal turbinates are swollen. The nasal passages are narrowed. After anemisation nasal turbinates become significantly reduced, breathing improves. Sinus is painless on palpation. Rhinocytogram: eosinophils - 7%.

Tasks 3

Boy, 12 years old, complains of headache and impaired nasal breathing. The disease is associated with the trauma that happened four days ago.

The general condition is satisfactory. Temperature is 37.4⁰C. External nose is swollen, hyperemic and painful on palpation. The bright red bulges are visible in the anterior parts of nasal septum from both sides, completely closing the general nasal passages. They are easily compressed when touched by a bulbous-end probe. Nasal breathing is absent on both sides.

Task 4

A patient, 27 years old, complains of dryness in the nasal cavity, dry crust with an unpleasant odor in the nasal passages, difficulty in nasal breathing. She is sick over 5 years.

The mucosa of the nasal cavity is dry, thin. Nasal turbinates are reduced in size. The nasal passages are wide. Abundant dry green crusts with fetid purulent discharge are observed in the nasal passages. There is perforation in the anterior part of the nasal septum. Nasal breathing is difficult. The mucous membrane of posterior wall of the pharynx is thin and smooth.

Task 5

A patient, 20 years old, complains of constant difficulty breathing through nose on the right side, headache. There was a nose injury in the childhood.

The nasal bridge is displaced to the left. Nasal septum deviation to the right is detected. Nasal mucosa is pink and moist. Nasal turbinates are swollen. Breathing through the nose is difficult. Paranasal sinuses are painless on palpation.

Task 6

A patient, 47 years old, complains of difficulty breathing through nose (mostly on the right side), heaviness in the forehead, reduced olfaction. These complaints appeared 2 years ago. Initially, nasal congestion was periodical, later it became constant. Vasoconstrictor drops and ointments had a positive effect, but recently they have become inefficient.

Multiple grey-blue formations, resembling bunches of grapes, are detected in the right half of the nose in the middle and lower nasal passages. A number of such formations are located in the left nasal cavity in the middle nasal passage. Nasal mucosa is pink. Nasal breathing is absent on the right side and labored on the left. The mucous membrane of the larynx and pharynx is not changed. Whispered speech is 6 m in both ears.

Task 7

A patient complains of headache, purulent odoriferous discharge from the left side of the nose and labored breathing on the left side. These symptoms have been disturbing the patient for 3 years. Headache is diffused, accompanied by increase of discharge from the left side of the nose, dryness in the throat and the appearance of muco-purulent sputum in the throat in the morning.

The general condition is satisfactory. The body temperature is 37.2⁰C. Left lower eyelid is edematous. The left cheek is painful on palpation. The skin at the left nasal aperture is hyperemic and infiltrated with fissures covered with green crusts. The mucous membrane of the left half of the nose is hyperemic, swollen, covered with thick

muco-purulent discharge. Pathological changes are not found in the right half of the nose. The 5th tooth of the left upper jaw is carious. Pharyngeal mucosa is hyperemic, swollen, covered with thick muco-purulent discharge.

Task 8

A patient, 26 years old, complains of pain in the right half of the forehead, heaviness in the head, runny nose, labored nasal breathing, fever up to 38⁰C and malaise. He got ill 5 days ago, a week after the respiratory disease.

Skin is moist. Pulse is rhythmic, 84 beats per minute. Nasal mucosa is hyperemic and infiltrated. There is muco-purulent discharge in the right middle and lower nasal passages. Breathing on the right is difficult. Pain in the forehead and in the right maxillary sinus is determined by palpation.

X-ray of the paranasal sinuses shows darkening of the right frontal and maxillary sinuses.

Task 9

A patient, 12 years old, complains of a severe headache, purulent runny nose, labored nasal breathing. He got ill 5 days ago. Illness started with pain in the forehead from both sides, body temperature increased to 38.5⁰ C. Eyelid edema and fever up to 39.5⁰C appeared the next day.

Edema is observed on the forehead and eyelids from both sides. Nasal mucosa is hyperemic, infiltrated. Pus is in the nasal passages on both sides. Breathing through the nose is difficult. There is pain on palpation of the maxillary and forehead sinuses on both sides. X-ray of the paranasal sinuses shows a total darkening of the maxillary and frontal sinuses on both sides. Blood test: WRC - 19.5×10^9 l, ESR – 60 mm/h.

Task 10

A patient, 14 years old, complains of severe pain in the right side of the forehead, nasal congestion, purulent discharge from the right half of the nose, increased body temperature to 38.7⁰C. All these symptoms started 4 days ago after influenza.

Nasal mucosa is hyperemic and infiltrated. Pus is detected in the right middle and lower nasal passages. Breathing through the right half of the nose is difficult. There is tenderness of the forehead on the right. X-ray of the paranasal sinuses shows darkening in the right frontal sinus with horizontal level of liquid.

Task11

A patient complains of swelling in the right side of the forehead, double vision. She treated herself by applying compresses at this area. Swelling gradually continued to increase. She didn't know the cause of the disease. The patient had a car accident eight

years ago. She was treated at the district hospital for concussion and fracture of the nasal bones. Patient doesn't complain of headaches and nasal discharge.

The general condition is satisfactory. Temperature is 36.7⁰C. There is deformation of solid consistency; it is painless, with a smooth surface in the internal angle of the orbit and the right half of the forehead. Skin above the deformation is not inflamed. Right eyeball is displaced outwards and downwards, its mobility is limited, lacrimation from that eye is observed.

Task 12

A patient complains of pain in the right side of the forehead, temple, crown, labored breathing through the right half of the nose and pus discharge. She had a runny nose some time ago. The most intensive pains on the right side of the head are observed at night. The patient takes amidopirin, but it does not bring relief. Pain reduces in the morning, purulent discharge from nose increases.

The general condition is satisfactory. Temperature is 37.4⁰C. There is skin hyperemia on the right side of the forehead and swelling of the upper eyelid. The patient feels pain on palpation of the forehead on the right at the site of 1st branch of the trigeminal nerve exit point. Muco-purulent discharge is detected in the right half of the nose. Drops of 3% ephedrine solution were introduced into both halves of the nose. Patient's head is tilted anteriorly. The patient cleaned the nose 5 minutes later. A significant amount of pus came out of the right half of the nose. Abnormal discharge is not evident from the left half of the nasal cavity.

Task 13

A patient, 36 years old, squeezed a purulent furuncle on the nose. The general condition worsened a day after. There was shivering, sweating, hectic body temperature to 38⁰C, severe headache.

Skin is earthy. Breathing is vesicular. Heart sounds are muffled, pulse is 98 beats per minute. Abdomen is soft, painless, liver is palpable 2 cm below the costal arch. There is swelling, redness and infiltration in the area of the nose to the left, spreading to the left cheek, the left lower eyelid and upper lip. There is sharp pain in the nose and left cheek. Breathing through the nose is free.

Task 14

A patient, 14 years old, complains of purulent rhinitis, pain in the right side of the forehead, difficulty breathing through nose after the recent flu. Despite the therapy the condition has worsened, headache has increased; body temperature has risen to 39.4⁰C. The patient felt general weakness, fatigue, pain in the right eye.

Skin is pale, wet. Pulse is 98 beats per minute, regular. There is infiltration and hyperemia on the right eyelid, palpebral fissure is narrowed, exophthalmos is observed. Right eyeball mobility is limited. Nasal mucosa is hyperemic, infiltrated, pus in the right half of nose is detected. Right forehead is painful on palpation. Breathing through the right half of the nose is difficult.

Task 15

A patient, 35 years old, complains of severe headache, purulent nasal discharge, nausea, fever up to 40⁰C.

General condition is serious. Skin is wet. Heart sounds are muffled, pulse is 102 beats per minute. Rigid neck, Kernig's sign are observed. Ophthalmologist detected widened veins of the eye fundus, congestion of the optic nerves. There is a significant amount of pus in the right middle nasal passage, pain in the area of the right frontal and maxillary sinuses. X-ray of the paranasal sinuses shows a total darkening of the right frontal and maxillary sinuses, ethmoidal labyrinth. There is fetid pus and cholesteatomas in the puncture of the right maxillary sinus.

Task 16

A mother with a 6-year-old child consults a doctor complaining of right eye redness, eyelid edema and fever. The child has been sick for two days. Recently the child has caught a cold.

General condition is serious. Temperature is 38.7⁰C. Right sides of the eyelids are swollen, hyperemic and painful. Palpebral fissure is closed by eyelids. The edges of the eyelids and eyelashes are covered with a yellow crust. It is difficult to open the palpebral fissures. There is severe swelling and redness of the conjunctiva. The eyeball is displaced anteriorly and laterally, immobile. Pupillary reflex is not observed. There is a large amount of pus in the right half of the nose, mucous membrane is hyperemic.

Task 17

A patient, 18 years old, complains of severe pain in the nose, external nose deformation. He was hit to the nose by a stick about 4 hours ago when he was playing hockey. It was severe nasal bleeding after hitting, which stopped spontaneously. The patient didn't lose consciousness, nausea and vomiting were not observed.

The external nose is displaced to the right, edematous, cyanotic. Pain and crepitus are detected on palpation. There is hematoma in the left infraorbital area and the lateral nose surface. Nasal mucosa is hyperemic and infiltrated. There are blood clots in the nasal cavity.

Task 18

A patient complains of a headache in the forehead. He notices the symptom 4 months ago. Recently, headache has intensified and acquired a regular character.

General condition is satisfactory. The internal organs abnormalities are not detected. ENT organs are without pathological changes. X-ray of the paranasal sinuses showed rounded, smooth edges bone shadow in the left frontal sinus, the shadow reaches the back wall of the frontal sinus.

Task 19

A patient, 62 years old, complains of headache, weakness, lacrimation, absence of nasal breathing, bleeding from the right side of the nose. He noticed the difficulty breathing through nose and headache about a year ago. Restorative treatment was performed but improvement didn't follow.

Facial asymmetry due to right exophthalmos and deformation of the right cheek is observed. Right nasolabial fold is flattened. Conjunctiva of the right eye is hyperemic. There is pus at the corners of his eyes. Mobility of the eyeball is not disturbed. The right half of the nose is filled with a blue neoplasm displacing the nasal septum to the left. The left side of the nose is narrowed, the mucous membrane is swollen. Left nasal passages are free. The back part of the neoplasm is hanging from the right choanae. The front wall of the right maxillary sinus is absent. The hard palate is deformed. Palpation determined bone destruction. Significant reduction of skin sensitivity of the right cheek is detected. Regional lymph nodes are not enlarged. X-ray of the paranasal sinuses shows that a shadow occupies the right half of the nose. There is bone destruction of the medial and orbital wall of the right maxillary sinus. Darkening in the right frontal and maxillary sinuses is homogeneous.

Task 20

A patient, 56 years old, complains of pain attacks in the left side of the head, breathing difficulties and bloody-purulent discharge with an unpleasant odor from the left half of the nose. He has been feeling indisposition for three weeks, the pain started in the left half of the face. Recently, toothache and pain in the left side of the forehead and temple have increased, breathing through the left half of the nose has worsened, bloody-purulent discharge has appeared. A doctor prescribed analgin tablets. The pain on the left side of the head continued to grow. Bulging of the left eye was observed yesterday.

Condition is moderate severity. The patient keeps his hands at the left half of the head due to attacks of severe pain. Temperature is 37⁰C. The left eyeball is displaced upwards and outwards, its mobility is limited. Palpation at the exit point of the trigeminal nerve II branch on the left is sharply painful. The left cheek is swollen. Displaceable lymph node 1.5x2cm in size is palpated at the left of submandibular

region. There is bloody-mucous discharge in the left half of the nose. The nasal mucous membrane is hyperemic. Nasal breathing through the left half of the nose is difficult and free through the right half. Carious teeth are absent. The fourth, fifth, sixth teeth in the upper jaw on the left are mobile. The hard palate is displaced downward.

CHAPTER 3 DISEASES OF THE EAR

Task 21

A patient complains of pain and swelling in the right ear. Five days ago she scratched the ear canal with a sharp object.

The right auricle is enlarged, infiltrated and hyperemic. Earlobe is not changed. Auricle is painful on palpation. The ear canal is narrowed. The tympanic membrane is gray.

Task 22

A patient complains of severe pain in the right ear, temples and crown of the head, aggravated in chewing. Temperature is 37.4⁰C.

The right auricle has normal configuration. On the anterior wall of the right external auditory canal there is a hyperemic conic lump. Pus is visible in the center of the lump. The auditory canal is narrowed. Tympanic membrane is not visible. Lymph node in front of the auricle is increased and painful. There is sharp pain on palpation of the tragus. Whispered speech is 6 m in both ears.

Task 23

A patient complains of moderate pain when chewing, itching and discharge of an unpleasant odor from the left ear. She has been sick for a week.

General condition is satisfactory. Temperature is 36.9⁰C. There is skin infiltration and hyperemia in the left external auditory canal and tympanic membrane, purulent discharge with odor in the ear canal. When a doctor presses the tragus and pulls the ear the patient feels pain. Whispered speech is AS - 4m, AD - 6m.

Task 24

A patient complains of stuffiness in the ear, severe rhinitis.

There is hyperemia and infiltration of the nasal mucous membranes, mucous discharge in the nasal passages. Breathing is difficult. The posterior wall of the pharynx is hyperemic. Eardrums are gray, turbid. Whispered speech is 4m in both ears.

Task 25

A patient complains of hearing loss and a sense of moving liquid in the right ear, noise. Hearing acuity varies and depends of the patient's head position. The patient has been ill for 10 days. The patient had a cold, accompanied by sneezing attacks, lacrimation, profuse nasal discharge, stuffiness in the right ear.

General condition is satisfactory. Nasal breathing is difficult. Ears and the mastoid process are not changed. Whispered speech AD is 3m, phonated speech AD is 6m. The hearing threshold of low-frequency sounds is increased. Hearing in the left ear is not affected. Nasal mucosa is hyperemic, swollen, covered with thick muco-purulent exudates. Swelling and hyperemia of the mucous membrane has become decreased, nasal breathing has become free after anemisation.

Task 26

A patient complains of pain in the right ear, hearing impairment, fever up to 37.7⁰C and general malaise. He became ill three days ago after supercooling.

There is redness of the mucous membranes of the nose and pharynx. Redness of the right eardrum in the upper department and smoothed contours of the hammer are observed. Light reflex is absent. Discharge in the ear canal is not present. Left ear is normal. Whispered speech: AD is 3 m, AS is 6 m.

Task 27

A patient complains of severe pain in the left ear and hearing impairment, fever, headache. She fell ill yesterday. At first there were signs of rhinitis, then hearing decreased, at night strong pain in the ear appeared, which reduced after analgin intake and warm dressing.

General condition is of moderate severity. Body temperature is 38.6⁰C. The area of the mastoid process and auricle is not changed. The patient feels pain on palpation of the left mastoid process. Whispered speech: AS is 1 m, AD is 6 m, phonated speech: AS is 2.5m.

Task 28

A patient complains of discharge from the right ear and pain in it, hearing loss, low-frequency noise. He had been suffering from cold for 2 weeks. Two days ago he felt stuffiness in the right ear, noise. Several hours later a sharp pain in the ear, headache

on the right side, shiver appeared. The patient didn't sleep the all night. In the morning he discovered pus in the ear.

The patient is pale. Body temperature is 37.4°C . Pulse is 78 beats per minute. The auricle is not changed. Palpation of the right mastoid process is painless. There is a significant amount of muco-purulent discharge in the right external ear canal. Whispered speech: AD is 1m, AS is 6m. Phonated speech: AD is 3.5 m. He hears the words with low-frequency sounds worse. The increase in the volume of spoken words enhances audibility and intelligibility of speech. The difference in distance between the perception of phonated speech and whisper speech is low. Spontaneous symptoms of the vestibular analyzer disorder are not revealed. Blood test: RBC - $4.38 \times 10^{12}/\text{l}$, HB - 120g/l, WBC - $16.0 \times 10^9/\text{l}$, stabneutrophils - 8%, segmented neutrophils - 68%, lymphocytes - 16%, monocytes - 8%, ESR - 21 mm/h/.

Task 29

A patient, 35 years old, complains of hearing impairment and noise in the left ear. She is ill for 6 days. Recently she has suffered from rhinitis. Pain in the left ear, purulent discharge from it and hearing impairment appeared later. She was treated with antibiotics. Gradually discharge from the ear stopped, though hearing impairment remains. Hearing has worsened, noise in the ear has appeared. Physiotherapy is ineffective.

General condition is satisfactory. Body temperature is 36.7°C . Pathology is not revealed by external examination and palpation of the upper respiratory tract. Hearing: whispered speech: AD is 6m, AS is 1m, phonated speech: AS is 4.5 m. Patient perceives low frequency sounds worse by the left ear.

Task 30

A patient complains of pain in the right ear, discharge of pus from it. He fell ill after supercooling. The patient treated himself. Four days later he felt vertigo, with sense of counter clock wise movement of objects, complete deafness in the right ear, nausea, vomiting.

Hyperemia of the mucous membrane of the nose and the pharynx posterior wall is determined. There is purulent discharge in the right ear canal, redness of the eardrum, pulsating reflex in its center. Mastoid process is painless. Left ear is without pathology. Whispered speech: AD is 0m, AS is 6m. Spontaneous nystagmus to the right is observed. There is deviation to the left in the finger-finger and finger-nose test. The patient falls to the left at Romberg's test.

Task 31

A patient 35 years old, complains of pain in the left ear, its suppuration, hearing impairment. Pain in the ear appeared during a respiratory disease with high fever. She was treated by a physician, no improvement was observed.

The body temperature is 38.2⁰C. There is pain and fluctuation on palpation, skin hyperemia behind the left ear, pus in the ear canal. Whispered speech is 1m. The right ear is normal.

Task 32

A patient, 42 years old, was admitted to hospital. The patient felt dizziness, nausea, sweating during left ear irrigation at clinic. The doctor noticed nystagmus. These symptoms had been observed before an incident when the patient had been cleaning the ear, but they were less evident. He has been ill since the age of 7. Exacerbations with suppuration from the left ear, hearing loss occur periodically.

General condition is satisfactory. The left external ear canal is clean. There is an extensive total defect of the eardrum. The mucous membrane of the tympanic cavity is hyperemic. Whispered speech is 2 m. Other ENT organs are without pathology. Spontaneous vestibular disorders are absent. Pressure nystagmus is observed.

Task 33

A patient, 53 years old, was admitted to hospital with complaints of dizziness (sense of objects rotation from right to left), nausea, vomiting, balance disorders, hearing loss and noise in the left ear. The attack started suddenly without apparent cause. Similar attacks have been worrying her for last three years after termination of menstruation. Hearing is getting worse after each attack.

ENT organs are normal. The spontaneous horizontal-rotatory nystagmus of the III degree to the left is observed as well as deviation to the right with both hands in finger-to-nose test. The patient falls to the right in the Romberg's position. Whispered speech: AS is 1.5 m, AD is 6 m.

Task 34

A patient, 26 years old, complains of tinnitus and hearing impairment. She felt the first symptoms three years ago after the childbirth. Hearing worsens gradually. Patient hears better in a noisy environment.

Both external auditory canals are wide, sulfur is absent. Eardrums are pale and thin. Hearing function disorder of a conductive type in both ears is observed. Vestibular disorders are not detected.

Task 35

A patient, 33 years old, complains of dizziness, nausea, balance disorders, hearing impairment in both ears, tinnitus. These symptoms appeared during treatment with streptomycin for pneumonia.

Both eardrums are gray. Audiometria: hearing function disorder of sound reproduction type. Spontaneous nystagmus to the right is detected. The patient falls to the left in the Romberg's position. She deviates to the left when walking.

Task 36

A patient, 60 years old, complains of constant high frequency noise in the ears, hearing loss. He is ill for several years. The patient was working as a blacksmith for 20 years. He had concussion with hearing loss, which partially restored after treatment. The patient has never felt pain in the ears and suppuration.

The eardrums are gray. Whispered speech: AD is at the auricle, AS is 0.5 m, phonated speech: AD is 1 m, AS is 1.5 m. Patient hears worse high frequency sounds in noisy environment. Loud speech does not improve hearing, causes ear pain and irritation. Audiometry was performed.

Picture # 54

Task 37

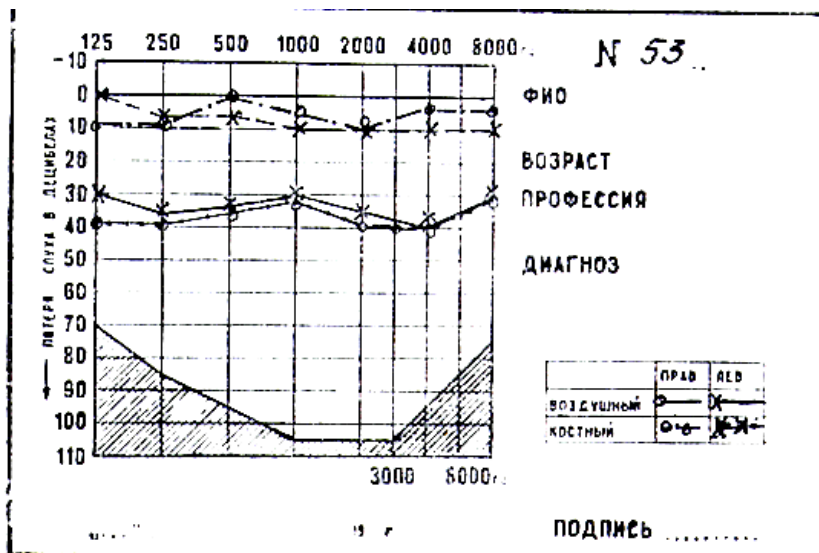
A patient, 36 years old, complains of hearing loss in both ears. He has been suffering from suppuration of the ear since the childhood. Hearing loss started 3 years ago, the disease progresses.

Nasal mucosa is pink and swollen. The inferior turbinates are increased in size in the posterior ends. Abnormal secretions in the nasal passages are absent. There are no changes in the pharynx and larynx. The ear canals skin is not changed. Pus in the ear canals is absent. The eardrums are grey, sharply embroiled, scarring changed. Light reflex is not detected. Whispered speech: AS is 2 m, AD is 3 m.

Task 38

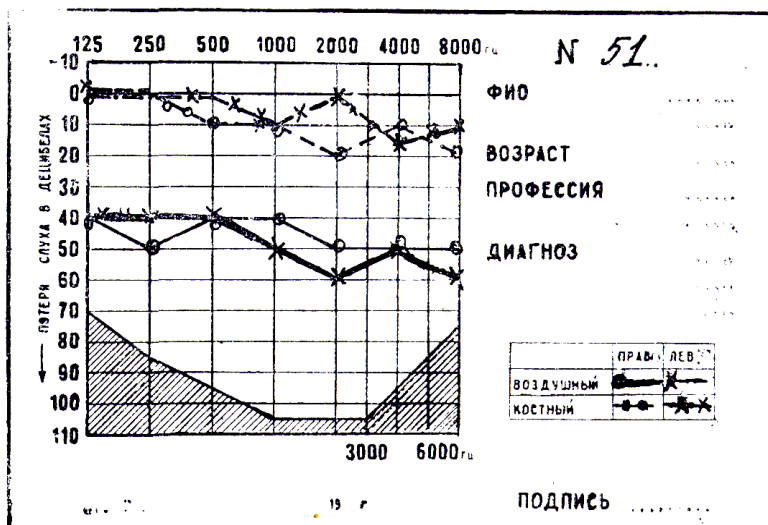
A patient, 25 years old, complains of hearing loss in both ears. She fell ill three years ago after the childbirth. Hearing is loss progresses. Noise in the ears has appeared. Ear pains and suppuration have never disturbed.

The ear canals are clean. The eardrums are gray. Whispered speech is 2 m in both ears. Audiometry was performed.



Task 39

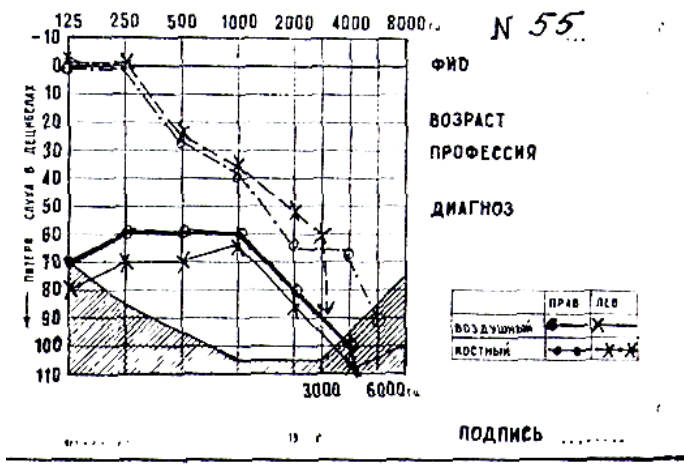
A boy, 14 years old, has been suffering from ear infections for the past 5 years. The disease started during scarlet fever with pain in the ears, hearing loss and suppuration. Since that time hearing has been worsening permanently. Suppuration of the ears starts after supercooling. Purulent discharge is poor, odorless. Whispered speech: AS is 2 m, AD is 3 m. Audiogram:



Task 40

A patient, 65 years old, has been suffering from ear infection for over 40 years. Suppuration of both ears bothers annually, hearing is impaired. The patient was not treated. Hearing loss has been progressing for the last year.

Purulent discharge with an unpleasant odor is found in the ear canals. Whispered speech is 0 m in both ears, phonated speech is at the auricle in both ears. Audiogram:



Task 41

A patient, 19 years old, complains of hearing loss in the right ear and pus of unpleasant odor. The patient was not treated.

Fetid pus with admixture of white flakes drips out of the right external auditory canal. Palpation of the mastoid process is painless. Whispered speech: AD is 0.5 m, AS is 6 m, phonated speech: AD is 3 m. Increase of voice loudness improves intelligibility of the words. The difference between the perception of whispered and phonated speech is considerable. Spontaneous symptoms of vestibular analyzer disorder are absent.

Task 42

A patient, 17 years old, complains of hearing impairment in the left ear, recurrent purulent discharge from it. She has been sick since the age of 4. Exacerbation of the disease occurred frequently. It was accompanied by increased suppuration from the left ear, hearing impairment. Ambulatory treatment had no effect.

General condition is satisfactory. The internal organs are without pathology. There is pus in the left auditory canal. The mastoid process is painless. Whispered speech: AD is 6 m, AS is 1.5 m, phonated speech AS is 3 m. Speech recognition is worse for words with low-frequency sounds. Spontaneous symptoms of the vestibular analyzer are not found. X-ray of the temporal bones in the Shuller's projection: no pneumatization of the left mastoid process. Right mastoid process has good pneumatization.

Task 43

A sportsman complains of a painful swelling in the left auricle, which appeared two days ago after ear trauma while coaching. A rounded shape bluish-red color swelling is observed in the upper third of the left auricle from the outside. Palpation determines fluctuation.

Task 44

A patient, 52 years old, complains of hearing impairment, pain in the left ear and behind the left ear, muco-purulent discharge from it. He has been sick for three weeks. The disease started acutely after a cold.

The temperature is 37.4°C. The mucous membrane of the nasal cavity and pharynx is hyperemic. The laryngeal mucous membrane is not changed. The right ear is without pathology. The skin of the left auricle and auditory canal is not changed. Muco-purulent discharge is in the left ear canal. Tympanic membrane is hyperemic. The perforation in the central part of the eardrum is observed. Muco-purulent discharge comes through the perforation. Palpation of the left mastoid process is painful. Skin behind the left ear is hyperemic. Retroaural crease behind the left ear is not detected. Whispered speech: AD is 6 m, AS is 0.5.

Task 45

A patient, 30 years old, complains of pulsing pain in the left ear, suppuration from it, hearing impairment. He has been sick for two weeks. After supercooling he felt runny nose, congestion of the left ear, then severe pain in it. Body temperature increased to 39°C. After 2 days, there was purulent discharge from the left ear, the pain diminished. Temperature became subfebrile. The patient was treated by antibiotics. Muco-purulent discharge from the ear continued to disturb. The pain spread to area of the left mastoid process.

There is muco-purulent discharge in the left ear canal. The left tympanic membrane is hyperemic, infiltrated, edematous. There is perforation in the postero-inferior quadrant. There is swelling and tenderness on the apex of the mastoid process. The right ear is normal. X-ray of the temporal bone: darkening of the left mastoid cells is observed.

Task 46

A patient, 21 years old, complains of severe pain in the left ear, weakness, chill, headache. She has been sick for 4 weeks. Hearing loss appeared after runny nose, then severe pain in the left ear and its suppuration started. The patient was treated at an outpatient clinic. Improvement occurred. Three days ago the patient's condition worsened, the body temperature increased to 39°C, the amount of purulent discharge from the left ear reduced.

The patient is irritable, pale. The body temperature is 39.2°C, pulse is 106 beats per minute, regular. Internal organs pathology was not found. The left auricle is protruded anterior. There is a large amount of pus in the left ear canal. Soft tissue in the left mastoid is hyperemic, infiltrated, sharply painful. The asymmetry of the left mastoid process is detected. Tenderness on palpation in the left mastoid process is detected.

Whispered speech AS is 0.5m, phonated speech AS is 3m. Patient has difficulty hearing the words of low-frequency.

Task 47

A patient, 15 years old, was admitted to hospital with complaints of pain and swelling behind the right ear, hearing impairment, suppuration of the right ear. Purulent discharge has been bothering from the age of 5 after the measles. During the past 5 years the patient was being repeatedly suggested surgery on the ear. Parents refused the operation. Two month before the hospital admission the patient felt pains in the right ear, suppuration, and headache. The patient was treated with antibiotics. He felt better, headache disappeared, suppuration out of the ear continued. Two weeks ago, there was swelling and pain behind the right ear, which slowly grew, headache began to disturb, fever (body temperature rose to 39.8°C), with a sharp temperature decrease and excessive sweat, general health condition worsened.

General condition is moderate severity. The pulse is 120 beats per minute, regular. Temperature is 39.1°C. Blood pressure is 120/70 mm. Hg. Skin is gray. Palpation in the right hypochondrium is painful. There are no neurological symptoms. There is a diffuse swelling in the area of the right mastoid process, pain is determined on the posterior surface of the mastoid process. Retroaural crease behind the right ear is flattened. Pus and caseous masses are in the right auditory canal, they hang over the posterior-upper wall of the auditory canal. Spanned part of the tympanic membrane is scar-modified, its relaxed part is absent, the lateral wall of the attic has carious changes. Caseous masses and small granulation is visible through perforation. The left eardrum is gray. Hearing: whispered speech AD is 1 m, AS is 6 m. X-rays of the temporal bone: pneumatic type of the left mastoid process structure, mastoid process sclerosis and cortical destruction on the right.

Task 48

A patient, 42 years old, complains of severe pain in the left side of the head, loss of appetite, recurrent vomiting, unrelated to food intake. For about 10 years the patient has been suffering from the left ear disease with hearing impairment. Suppuration from the left ear occurs periodically at supercooling, pains disturb sometimes. Six month ago, during otitis exacerbation the patient noted dizziness, nausea and sudden hearing loss in the left ear. These symptoms have been observed till today.

Skin is pale with an earthy hue. Tongue is furred. Pulse is 48 beats per minute. Patient is sluggish, lethargic. He can not name a shown subject correctly, does not understand the speech addressed to him, does not perform tasks. The patient's speech is disturbed: he builds sentences incorrectly, incorrectly says single words. Stiff neck, positive Kernig's symptom are observed. There is purulent discharge in the left auditory

passage. The left tympanic membrane is hyperemic. There is a defect in its upper-posterior part. Granulation is found in the tympanic cavity. Palpation of the left mastoid process is painful. Whispered speech is 0.5 m. The right ear is without features. Eye fundus examination: congestive optic disk is observed. Lumbar puncture: the cerebrospinal fluid is turbid, flows in high pressure.

Task 49

A patient, 18 years old, complains of severe headache in the back of the head, non-systemic dizziness, nausea, suppuration of the left ear. He fell ill two days ago. Constant suppuration out of the left ear bothers from childhood.

The patient is lethargic, does not answer the questions. He lies on the left side. Skin is pale, gray. Pulse is 58 beats per minute, regular. Temperature is 38.9° C. There is purulent discharge with an unpleasant odor in the left auditory meatus. The left tympanic membrane is hyperemic. There is perforation in the upper-posterior quadrant. There are granulation and white masses in the tympanic cavity. Pain is detected behind the ear on palpation. Whispered speech: AS is at the auricle, phonated speech is 0.5 m. Other ENT organs are without abnormalities. Horizontal nystagmus to the left is detected. Adiadochokinesia is on the left. The patient misses to the left in finger-nose and knee-heel tests. Muscle tone in the left extremities is reduced. Patient falls to the left in Romberg's position. Direction of the fall is not changed in changing of head position.

Task 50

A patient, 16 years old, was taken to hospital with severe condition. He complains of severe headache, nausea, vomiting, loss of appetite, fever, suppuration of the left ear, hearing impairment. Suppuration of the left ear has been bothering from childhood. Exacerbation began after respiratory disease two weeks ago. Profuse discharge from the ear appeared, hearing decreased, body temperature increased to 39° C. Headache started a week ago. Nausea and vomiting appeared two days ago.

The patient is excited, restless, lies on the side with the bent legs and head thrown back, eyes closed (annoying light). Herpetic eruptions are on the upper lip. Pulse is 98 beats per minute. Body temperature is 39.9°C. Stiff neck, Kernig and Brudzinski symptoms are determined. Local pathology is not revealed. Mucous membranes of the nose and throat are hyperemic. There is purulent discharge with an unpleasant odor in the left auditory canal. There is total perforation of the left eardrum. Pus, cholesteatoma flakes and granulation are observed in the tympanic cavity. There is caries of the attic lateral wall. Whispered speech: AS is at the auricle, AD is 6 m, phonated speech: AS is 1 m. Lumbar puncture: cerebrospinal fluid is turbid, flows under high pressure.

Task 51

A patient complains of general weakness, headache, nausea. Temperature increased two days ago, it was fever, followed by dramatic temperature decrease. Temperature decrease was accompanied by profuse sweating. Four times temperature increase with fever was observed. The patient noted periodical suppuration of the right ear. He was treated by ENT-doctor who recommended a surgery, but the patient refused.

The general condition is serious. Temperature is 39.7°C. Pulse is 112 beats per minute, regular, deficient. The face is pale, sclera is yellow. Heart sounds are muffled, there is a systolic murmur on the apex. The liver protrudes beneath the costal margin for 1.5 cm, painful on palpation. The skin in the area of the right mastoid process is hyperemic, swollen, painful. There is green pus with an unpleasant odor in the right external auditory canal.

Task 52

A patient, 43 years old, complains of hearing loss, recurrent purulent discharge from the ear and dizziness. He has been ill since early childhood. Purulent discharge from the ear contains admixtures of blood and white masses with an unpleasant odor. Headaches in the right temporal region has been disturbing recently. Pains worsen during periods of cessation of discharge from the ear. Rotation vertigo is accompanied by nausea, sometimes vomiting. It appears during a sharp turn of the head or body, in public transport, during ear cleaning.

The general condition is satisfactory. There is pus with unpleasant odor and admixture of white furfur in the right external auditory canal. Pressure on the right tragus causes an involuntary sudden movement of patient's head to the left and gradually failing horizontal nystagmus to the right. These phenomena are accompanied by paleness of the patient, nausea and vomiting. Whispered speech AD is at the auricle, phonated speech AD is 1 m.

CHAPTER 4

DISEASES OF THE LARYNX

Task 53

A teacher complains of periodical hoarseness, sore throat. She has been ill for 3 years. Exacerbations repeat several times a year. Hoarseness increases at the end of the working day, especially during school hours. Dry cough and sore throat appear at these periods.

The internal organs are without pathology. The mucous membrane of the throat and nose is pink, the lymph nodes are not enlarged. Crepitation of the larynx is preserved.

Task 54

A girl, 13 years old, complains of difficulty in breathing, short breath, periodical cough. She was eating beans when felt an unexpected push in the back a week ago. Cough and breathing difficulty appeared. Later breathing restored, cough decreased. During coughing she felt something in the throat which went down during exhalation. This feeling passed four days later. Cough bothered periodically. Malaise appeared.

Pathology of the ENT organs was not found. Chest X-ray: atelectasis of the lower lobe of the right lung.

Task 55

A patient complains of cough, hoarseness, fever. The patient drank cold beer two days ago. These symptoms have increased by this day.

Condition is satisfactory. Body temperature is 37.5°C. The mucous membrane of the nose and throat is pink. Laryngeal mucosa is hyperemic. The vocal fold is hyperemic, infiltrated. The glottis is wide enough for breathing.

Task 56

A patient complains of severe pain in the throat, when swallowing, hoarseness. He fell ill last week after accident at work (was hit by a metal object in the neck). The patient was treated with compresses on the injured site, took pills of analgin. Neck pain decreased significantly. Pain appeared again two days ago, it was gradually increasing. Hoarseness appeared. Temperature increased.

General condition is of moderate severity. Temperature is 38.7°C. Breathing is free. The neck skin in the right anterolateral region is hyperemic and infiltrated, easily taken into a fold. Palpation at this point is sharply painful. The contours of the right half of the larynx are smoothed. Cervical lymph nodes on the right are enlarged, painful.

There is vesicular breathing in the lungs, rales are absent. Heart sounds are regular, clear. Pulse is 88 beats per minute, its strength is satisfactory.

Task 57

A patient complains of hoarseness, dry cough in the morning. The patient has been treated for the flu for a week. Blood clots in the sputum and hoarseness appeared in the morning.

The general condition is satisfactory. Temperature is 37.2°C. Breathing is free, voice is hoarse. Pharyngeal mucosa is hyperemic and covered by mucus with blood. Regional lymph nodes are not palpable. Crepitation of larynx is preserved. There is vesicular breathing and dry rales in the lungs.

Task 58

A patient, 32 years old, complains of hoarseness. He fell ill about a year ago after a cold. Since then, his voice is constantly hoarse. The patient smokes. The patient whispers during exacerbations.

Condition is satisfactory. There are no pathological changes in the nose and throat. Laryngeal mucosa is pink with a bluish tint. The vocal cords are hyperemic, thickened, mobile. Glottis is wide at the time of inhalation.

Task 59

A patient complains of dryness in the throat, hoarseness and cough with crusts and viscous green sputum streaked with blood. Sometimes the patient notices difficulty in breathing after the sodium inhalation. He has been ill for 5 years. Patient works at flour plant. He smokes, drinks alcohol.

The general condition is satisfactory. Temperature is 36.4°C. Breathing is free. Severe hoarseness is observed. Breathing in the lungs is harsh with dry rales. Heart sounds are clear, noises are absent. Pulse is 72 per minute, regular. Nasal mucosa is hyperemic. There are a lot of crusts in the nasal cavities. Pharyngeal mucosa is hyperemic, thinned, covered with viscous purulent discharge.

Task 60

Barking cough suddenly started in a three-year-old child during sleep. Breathing was noisy, interrupted. Intercostal spaces were drawn in during inhalation. His lips were blue. He was anxious, covered with cold sweat. The voice remained sonorous. Body temperature is 37.3°C. Asthma attack appeared after a 2-day viral infection.

Task 61

A patient complains of spontaneous pain in the throat, and pain on swallowing, fever up 38.9° C, labored breathing, hoarseness, malaise. The patient fell ill three days ago after supercooling. Asthma attack occurred at night. It was easier to breath in a semi-sitting position.

Skin and mucosa membranes are pale. Patient breathes freely at rest. There are 20 breathes per minute. Pulse is 94 beats per minute. Pulse and breathing became more frequent at physical activity. Pharyngeal and laryngeal mucosa is hyperemic. There is swelling of the epiglottis, arytenoids-epiglottic and vestibular folds. The vocal fold is hyperemic, infiltrated. Glottis is narrowed. Breathing is difficult. Voice is hoarse.

Task 62

A patient, 24 years old, complains of sharp pain in the throat when swallowing and speaking, labored breathing. He is sick the second day. The patient woke up from asphyxiation at night. He noticed the appearance of hoarseness.

The skin is pale. There is acrocyanosis of fingers and toes. The mucous membrane of the lips is cyanotic. Retraction of supraclavicular and jugular pits on inspiration is observed. Body temperature is 39.2°C. Pulse is 120 beats per minute. The number of breathes is 30 per minute. It is swelling of the epiglottis, arytenoids-epiglottic and vestibular folds, the area of arytenoid cartilages. Mobility of both halves of the larynx is limited. Breathing is difficult at rest.

Task 63

A patient, 50 years old, complains of difficulty in breathing at minor physical activity, shortness of breath, hoarseness. She has been sick for a year after surgery on the thyroid gland due to nodular toxic goiter. Tracheotomy was offered. The patient refused.

There is postoperative transverse scar on the neck. Skin is pale. There is cyanosis of the nose and lips. Respiration is vesicular. It is retraction of intercostals spaces on inspiration. Heart sounds are muffled. Pulse is 104 beats per minute. The number of breathes is 24 per minute. Laryngeal mucosa is pink. Glottis is narrowed. Both vocal folds are fixed. Breathing is difficult at rest. The voice is absent.

Task 64

A girl, 5 years old, complains of hoarseness. She has been sick for two years. Labored breathing appears in respiratory diseases.

Inflammatory changes are absent in the nasal cavity and pharynx. Direct laryngoscopy detects knobby cauliflower-like infiltrate is visible along the vocal folds and on the surface. Glottis is narrowed. The mobility of the vocal folds is not damaged. Breathing is difficult on exertion.

Task 65

A patient, 33 years old, a turner, was traumatized in the neck area with a metal object. He did not visit doctor. Chills, fever, severe pain in the larynx, swelling and tenderness of the right side of the neck, slight difficulty breathing appeared in 6 days. Patient took aspirin and gargled the throat. Fistula with pus appeared on the skin of the right side of the neck.

The general condition is serious. Skin is gray. Temperature is 40°C. There is inspiratory dyspnea at physical tension. Monotonous noise is heard at inspiration. Heart sounds are rhythmic, muffled. There is vesicular breathing. Skin is severely hyperemic on the front and right side of the neck. The soft tissue in the right thyroid cartilage is infiltrated and painful. There is fistula at this site. Pus is discharged on pressure. Neck lymph nodes are enlarged, painful, mobile. Crepitus of laryngeal cartilages is preserved.

Task 66

The patient complains of severe pain in the throat when swallowing, hoarseness, shiver. He has been sick for 2 days. The patient associates the disease with chill.

General state is moderate severity. Temperature is 38.4°C. Sharp painful lymph nodes are palpated along the front edge of the sternocleidomastoid muscle. Palpation of the larynx is painful. Breath is difficult, accompanied by a monotonic noise. Exhalation is not disturbed. Inspiratory dyspnea becomes more evident, stridor increases during exercise. Retraction of the supraclavicular fossae is observed during inspiration. Breathing is difficult. There are dry rales in the lungs. Cardiac tones are clear. Systolic murmur is at the apex. Pulse is 92 beats per minute, regular. Pharyngeal mucosa is hyperemic. There is swelling and redness of the mucous membrane at the entrance to the larynx. Glottis is narrowed.

Task 67

Parents of a 2-year-child complain of fever, colorless liquid discharge from the nose, hoarseness, cough, lethargy, poor appetite. The father has been ill with the flu for 2 days. The treatment was not effective. There was difficulty in breathing this morning.

General state is moderate severity. Temperature is 38.9°C. Skin is pale. Inspiratory stridor is observed. There is retraction of the chest and epigastric area. Paroxysmal barking cough occurs. Dyspnoea increases during coughing. The voice is hoarse. Vesicular breathing, dry rales are heard in the lungs. Skin on the upper lip is macerated. There is a significant number of serous discharge from the nose. Pharyngeal mucosa is hyperemic. Epiglottis is swollen, hyperemic. There are petechiae on the epiglottis.

Task 68

A child, 3 years old, presented to the emergency room by ambulance. He has been ill for 2 days. The disease began with fever up to 37.5°C, cough, progressive difficulty in breathing, hoarseness.

The general condition is serious. Inspiration is difficult, lengthened, accompanied by retraction of intercostal spaces, under- and supraclavicular fossae. Whistling noise is heard during inspiration. Exhalation is also difficult. The child is restless. Skin is pale. Lips are cyanotic. Neck lymph nodes have increased dramatically. Neck cellular tissue is edematous. Neck contours are smoothed. Pulse is 130 beats per minute, arrhythmic. Pharyngeal mucous membrane is hyperemic. There is incrustation on the tonsils, also situated on the soft palate and the back of the throat.

Task 69

A patient, 32 years old, complains of hoarseness. He has been ill for one year. Three months later hoarseness became constant.

The mucosa of the nose and throat is pink. Vocal folds are pink. Roundish gray grain-size formation is determined on the middle third of the left vocal cord. Mobility of the larynx is not disturbed. Glottis has normal size. Regional lymph nodes are not enlarged.

Task 70

A patient, 45 years old, complains of constant hoarseness. He has been sick for the past two months. Pain on swallowing is absent.

The left vocal cord is hyperemic. Knobby formation on a broad basis is located on the anterior third of the left vocal cord. The mobility of the left half of the larynx is limited. The right half of the larynx is not changed. Glottis is wide enough for breathing. Deep cervical lymph nodes on the left are enlarged, painless. Wassermann test is negative.

Task 71

A patient, 72 years old, complains of a sharp pain when swallowing, hoarseness. He can eat only liquid food. Patient has been ill for two months. He has been under a doctor's supervision of TB prophylactic center since the age of 40. Patient has been undergoing special treatment.

The mucosa of the nose and throat is pink. Incrustation is absent. There is a flat ulcerous infiltrate on the epiglottis, vestibular and arytenoid-epiglottis folds. Mobility of the larynx is not disturbed. Glottis is wide. Vocal cords are pink, thickened, mobile.

Task 72

A patient, 40 years old, complains of difficulty in breathing, dry nose, persistent hoarseness. He has been sick for 20 years. Courses of streptomycin, bronchoscopy with removal from bronchus infiltrates are performed periodically. Breathing improves after this. The patient lives in Brest region.

General condition is moderate severity. Hoarseness is expressed. Retractions of intercostal spaces, over- and subclavian fossae are observed at inspiration. Breath is deep. Pause between inhalation and exhalation is missing. Stenotic monotonous noise on inspiration is heard at a distance from the patient. Respiratory rate is 16 breaths per minute. Pulse is 92 beats per minute, regular. There is vesicular breathing, dry rales in the lungs. Mucosa of the pharynx is atrophic, hyperemic, covered with green crust. The soft palate is tightened up. Cervical lymph nodes are not palpable.

CHAPTER 5

DISEASES OF THE PHARYNX

Task 73

A 14-year-old girl complains of a sore throat, malaise, fever. She has been sick for 3 days.

Condition is moderate severity. Skin is wet. Body temperature is 40°C. Pharyngeal mucosa is hyperemic. Tonsils are covered with white deposit, extending to the palatal arch. Submandibular, upper cervical, axillary, inguinal lymph nodes are enlarged. General blood test: RBC - $3,9 \times 10^{12}/l$, Hb - 121g/l, WBC - $12,0 \times 10^9/l$, eosinophils - 4 %, basophils - 1%, stab neutrophils - 4%, segmented neutrophils - 23% , lymphocytes - 28%, mononuclears - 40 %. ESR - 24 mm/h.

Task 74

A woman consulted a doctor with a 6-year-old son. He has been sick for 3 days. The temperature increased; nasal breathing difficulties, mucous discharge from nose, paroxysmal cough and severe headaches appeared. The boy complained of pain in the throat and nose. The pain intensifies when swallowing.

General state is moderate severity. Temperature is 38.4°C. Skin is pale. Tachycardia is observed. Voice is nasal. Upper-cervical lymph nodes are enlarged and painful on palpation. The patient opens his mouth freely. Pharyngeal mucosa is hyperemic. Purulent discharge from the nasopharynx is observed on the posterior wall of the pharynx. Tonsils are not hyperemic. Deposit on tonsils is absent. There is mucopurulent discharge in both nasal passages.

Task 75

A patient complains of pain in the throat when swallowing, nausea, low back pain. He has been sick for 2 days. The patient connects the disease with a cold. The patient didn't suffer from throat diseases. Pain in the throat is bilateral. The patient doesn't feel pain between the swallowing acts.

The general condition is satisfactory. Temperature is 37.2°C. The cervical lymph nodes are enlarged and painful. Patient opens the mouth freely. The mucous membrane of the tonsils and palatine arches is hyperemic. Tonsils are swollen, covered with mucous discharge.

Task 76

A patient, 17 years old, complains of fever, weakness, headache, low back pain, pain in legs and throat when swallowing. The patient fell ill two days ago after a cold. Similar diseases are annual in spring and autumn. The disease lasts 3-7 days.

Condition is of moderate severity. Temperature is 38.3° C. Upper cervical lymph nodes are enlarged, painful on palpation. The patient opens his mouth freely. Caries of 5 and 6 teeth is determined in the upper jaw on the right. Tonsils are hyperemic and infiltrated. Round yellow spots are visible on its surface. General blood test: RBC- 4,3 x10¹²/l, Hb 130g/l ,WBC – 11,7 x 10⁹/l, eosinophils- 1 %, stab neutrophils -12%, segmented neutrophils -66 % , lymphocytes – 21%. ESR – 35 mm/h.



Task 77

A patient complains of pain in the throat when swallowing, the feeling of burning, coughing. He fell ill three days ago after supercooling. Condition improved after taking liquid hot food.

The general condition is satisfactory. Temperature is 36° C. Pulse is 76 beats per minute. Cervical lymph nodes are not enlarged, painless. Pharyngeal mucosa is hyperemic and covered with muco-purulent secretion. Follicles look like red grains on the mucosa of the posterior pharynx. Uvula is red, swollen. Blood test: RBC - 4,3x10¹²/l, Hb - 140g/l ,WBC – 4,7x10⁹/l, eosinophils - 3 %, stab neutrophils - 2%, segmented neutrophils - 65% , lymphocytes – 24%, monocytes – 6 %. ESR – 11 mm/h.

Task 78

A patient complains of dryness in the throat, cough. Pain irradiates to ears. The patient has been sick for 4 years. He does not know the cause. Unpleasant sensations in the throat decrease after taking a warm meal, and sometimes disappear for a while. The patient smokes, drinks alcohol. He works at paint and varnish factory. Health condition improves during holidays. The patient suffers from chronic gastritis with decreased secretion and cholecystitis.

The general condition is satisfactory. Temperature is 36.6° C. There is pain in the right hypochondrium on palpation. The patient opens his mouth freely. Regional cervical lymph nodes are not enlarged. The mucous membrane of the throat is dry, pale, covered with viscous mucus, crusts.

Task 79

A mother of a 7-year-old child consulted a doctor about breathing difficulties through the nose, and constantly runny nose in her daughter. The girl sleeps restlessly, with open mouth, snores loudly. She has difficulty of hearing. The girl suffers from bed-wetting.

The general condition is satisfactory. Temperature is 36.9° C. The pulse is 75 beats per minute. Voice is nasal. Nasolabial folds are smoothed. Skin in front of the nose is hyperemic, swollen and macerated. Child is undernourished. Pale is skin. Nasal mucosa is hyperemic. There is large amount of viscous mucus secretion in the nasal passages. Lymph nodes around the corner of the lower jaw are enlarged, painless. The upper incisors protrude, palatine tonsils protrude from the palatine arches almost touching each other. Ear pathology is not revealed. Whispered speech: AS is 3m, AD is 2.5m. Finger study of nasopharynx: soft consistency tissue covers choanae. Blood and urine is without abnormalities.

Task 80

A patient, 58 years old, complains of discomfort in the throat, swallowing difficulties and hoarseness. He has been ill for 1,5 moths. The patient does not know the cause. The disease started with sore throat, pain in the left ear, hoarseness. The patient used gargling, inhalation, compresses to the neck. Condition continued to deteriorate.

Temperature is 36.8° C. Movable painless cervical lymph nodes are determined on the left side. Crepitation of the larynx is not defined. The larynx is painless on palpation. Pharyngeal mucosa is pink without deposit. Tonsils do not protrude from the arches. There is no pathological content in the lacunae of the tonsils.

Task 81

A patient, 44 years old, complains of burning in the throat. This feeling appears after hypothermia or eating spicy food.

Pharyngeal mucosa is hyperemic. Tonsils are small. There are no plugs in the lacunae. The mucosa membrane of the posterior pharyngeal wall is hypertrophied, covered with viscous sputum. There is hypertrophy of lymphoid granules on the posterior and side walls. Laryngeal mucosa is pink. Vocal cords are gray, mobile. Glottis is wide.

Task 82

A patient complains of frequent bilateral pains in the throat, bad breath, foreign body sensation in the throat, headache and fatigue. He has been ill for 4 years. Pains in the throat appear in autumn or spring. Temperature rises, the pain occurs on both sides of the neck. Swallowing of liquid food and saliva is accompanied by pain. The patient was treated in hospital for kidney disease three years ago.

The general condition is satisfactory. Body temperature is 36.9°C. Pasternatsky sign is positive on both sides. The patient opens his mouth freely. Upper-cervical and submandibular lymph nodes are enlarged, painless. The patient has carious teeth. Pharyngeal mucosa is hyperemic. Anterior palatal arch is thickened and hyperemic. Tonsils do not protrude from the arch. The lacunae are widened. There is purulent fluid discharge from the lacunae.

Task 83

The patient complains of frequent acute tonsillitis. He has been ill from childhood. There was peritonsillar abscess 4 years ago. The patient complains of heart pain during the last year.

The patient's condition is satisfactory. Pulse is rhythmic, 76 beats per minute. Auscultation detects functional cardiac noise. Mucosa of the anterior palatine arches is hyperemic. Tonsils are dense, matted together with the arches. There are liquid purulent detritus in the lacunae of the tonsils. Lymph nodes are enlarged, thickened. There are big pink granules on the mucous membrane of the posterior pharyngeal wall.

Task 84

A patient complains of severe pain in the throat on the left. He has been ill for a week. The patient associates his illness with getting a cold. Temperature is increased. Pain in the throat when swallowing is observed. Doctor diagnosed follicular tonsillitis, appointed antiinflammatory treatment. The patient's condition improved. However, the deterioration occurred two days ago. At first, the pain appeared in the throat on the left. It increased when swallowing. When the patient tries to swallow the water, it pours through the nose. Pain spreads to his left ear. The patient can not open the mouth.

General condition is moderate severity. Temperature is 38.4° C. Pulse is 90 beats per minute, regular. The head is inclined to the left. Mouth is half open. Saliva is flowing out of his mouth. Lymph nodes to the left of the lower jaw are enlarged, painful. Voice is nasal. Trismus is evident. Soft palate is swollen and hyperemic. The mobility of its left half is limited. There is much mucus in the mouth. Bad breath is observed. Left palatine tonsil and palatal arch is hyperemic and infiltrated. Tonsil is displaced medially and downwards. Uvula is displaced to the right. The right palatine tonsil is hyperemic. Blood test: RBC - $3,8 \times 10^{12}/l$, Hb - 115g/l, WBC - $15,9 \times 10^9/l$, eosinophils - 1%, stab neutrophils - 17%, segmented neutrophils - 59%, lymphocytes - 18%, monocytes - 5%. ESR - 29 mm/h.



Task 85

A patient, 20 years old, complains of severe pain in the throat when swallowing, fever and chills. He has been ill for a week. Initially, malaise, slight fever, sore throat on both sides on swallowing appeared, temperature increased. A doctor diagnosed “Lacunar tonsillitis”. The patient was treated by antibiotic and gargling. General condition returned to normal. The next day the condition deteriorated again, spontaneous pain in the throat appeared, the temperature increased to 38.6° C. The patient went to the doctor again. The doctor diagnosed “exacerbation of chronic tonsillitis”. He appointed 0,5 aspirin 3 times a day, alcohol compress on the throat, 1.0 penicillin 3 times a day intramuscularly. The patient’s condition continued to deteriorate. Swallowing was accompanied by a sharp increase in pain in the throat on the right. Soon patient said that he could not fully open his mouth. Temperature increased to 39.2° C.

General condition is serious. His head is inclined to the right. Skin is pale. Tachycardia is observed. Trismus is expressed. The soft tissues of the neck to the right are swollen, painful. Mucous on right side of the throat is sharply hyperemic. Palatal arch and tonsils are hyperemic. Right tonsil is displaced anterior.

Task 86

A 5-month child is anxious, cries. Body temperature is 39.9° C. He breathes only through the open mouth, refuses to take the breast.

There is sharp hyperemia of the mucous membrane on the back of the throat. The mucous membrane of the nasal cavity is not changed. Abnormal secretions in the nasal passages are absent. Nasal breathing is dramatically difficult.

Task 87

A girl, 11 years old, complains of constant pain in the throat, spreading to the left ear. She has been ill for 3 weeks. Bad breath and nasal speech tone appeared recently.

Girl is undernourished, pale. Temperature is 37.1° C. An enlarged lymph node in the left submandibular area is detected. The mucous membrane of the mouth and pharynx is pink and wet. The left palatine tonsil is hyperemic, cyanotic, increased in size. There is ulcer, covered with gray deposit. Tonsil has a soft consistency on palpation. The mobility of the left half of the soft palate is limited. Blood test: RBC - $4,3 \times 10^{12}/l$, Hb - 115g/l, WBC - $10,8 \times 10^9/l$, eosinophils - 5%, stab neutrophils - 5%, segmented neutrophils - 42%, lymphocytes - 40%, monocytes - 8%. ESR - 27 mm/h.

Task 88

A boy, 13 years old, complains of difficulty in nasal breathing, frequent abundant nasal bleedings. He has been ill for 2 years.

General condition is satisfactory. Temperature is 36.4° C. Skin is pale. Boy is undernourished. Nasolabial folds are smoothed, the lower jaw is lowered. His mouth is half open. There is exophthalmos on the right. Nasal mucosa is pink. There are hemorrhagic crusts in the nasal passages. Breathing through the nose is difficult. There is cyanotic knobby formation, closing both choanae on the dome of the nasopharynx.

Task 89

Patient, 59 years old, complains of difficulty in nasal breathing, hearing impairment, headaches, pain in the left temporal region. She has been ill for about a month. Difficulty in nasal breathing was growing slowly. Then, feeling of stuffiness in the left, and then in the right ear appeared. The patient was treated with vasoconstrictor drugs (Naphazoline, Sanorin), which initially improved nasal breathing, but later had no effect. The patient noticed a node in the neck on the right about a week ago.

The mucous membrane of the nasal cavity is cyanotic. There is muco-bloody discharge in the nasal passages. Nasal breathing is absent. The nasopharynx cavity is occupied by a red knobby formation. Choanae and pharyngeal opening of the eustachian tubes are not visible. Compact, mobile, painless lymph nodes are detected on the right and on the left in the upper third of sternocleidomastoid muscle. The size of the lymph

node on the right is 3x4 cm, on the left - 2x3 cm. Eardrums are retracted and gray. Conductive hearing loss is observed on both sides.

X-ray of the skull in lateral projection shows the shadow of formation occupying the nasopharynx cavity from the top to the bottom of the vomer. Both sphenoidal sinuses are dark. The bone destruction of the skull base walls is absent. Radiography of the paranasal sinuses in the nasal-chin projection shows sinuses pneumatization. Wasserman test is negative.