**MINISTRY OF HEALTH OF UKRAINE**

Kharkov National Medical University

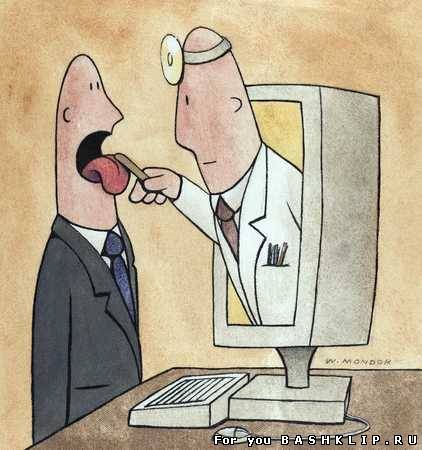
**OTORHINOLARYNGOLOGY DEPARTMENT**

SCHEME

OF THE OTORHINOLARYNGOLOGICAL PATIENT’S CASE HISTORY

**Manual**

**for fourth-year English medium students**



Recommended

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**ANNOTATION**

A course of otorhinolaryngology is included in higher medical schools for fourth-year students. According to the syllabus, case histories are written in all clinical subjects. During their previous years of training, the students got certain skills in completing case histories. But the clinical examination, diagnosing and receiving of the proper treatment with resultant writing of a case history of an otorhinolaryngological patient have a number of peculiarities. At the same time, by the present moment of time there are not any recommendations, which make it possible to arrange a case history in a methodologically correct way and teach students how to do it.

KHARKIV NATIONAL MEDICAL UNIVERSITY OTORHINOLARYNGOLOGY DEPARTMENT

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CASE HISTORY

(The scheme of examination for medical students)

Patient ˍ\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Place of residence \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Place of employment, occupation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Basic diagnosis \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Concomitant diagnosis \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completed by:

a student of the \_\_ year,

\_\_\_\_\_\_\_\_\_\_\_\_Faculty,

Group \_\_\_

Full name:

Kharkov, 2017

I. The general scheme of the patient’s examination

1. Personal data. Put down the patient’s surname, first name, second name (patronymic), age, place of residence, occupation, position (if the patient does not work, is disabled, his/her disability group and the date of its registration are stated), time of admission to the hospital, diagnosis of the referring medical establishment, diagnosis on hospitalization, clinical diagnosis (basic, concomitant, complications), time of examination (beginning and end).
2. **Complaints.** The patient’s complaints on admission to the hospital (department of otorhinolaryngology) are revealed and specified (their character, severity, duration, etc.); if the course of the disease is fit-like, one should describe in detail the onset of the attack, its duration, factors or drugs, which alleviate the condition or control the attack. It is necessary to separate the *basic* complaints, which are typical for this diagnosis with disruption of functions of some organ(s), and the *secondary* complaints, which are indicative of either some intoxication syndrome or concomitant disease.
3. Questioning by systems. Weakness (the degree of its intensity, dependence on the time of day and the work done), general or in certain muscle groups, adynamia.

Body temperature (normal, higher, lower), chills (time of appearance).

* 1. Cardiovascular system. Heart rate (steady, periodic). Pains in the heart region, their character (piercing, gripping, dull, burning), localization, constancy, periodicity, duration, radiation, what causes their appearance (emotional, physical loads), factors, which alleviate or control the pain (rest, taking of coronary active or sedative drugs). Dyspnoea: at rest, exertional, asthmatic fits: at night, at daytime, what causes their appearance). Blood pressure (normal, higher, lower). If the patient suffers from arterial hypertension, one should specify whether he/she has hypertensive crises, their frequency, character and time of appearance.
  2. Nervous system. Headache: its duration, localization, character (constricting, pulsing, boring), intensity; attacks of headache, their causes. Accompanying phenomena: nausea, vomiting, appearance of moving spots before the eyes, disturbance of vision. Vertigoes, syncopal states: their frequency, character, duration, causes.
  3. System of respiratory organs. Pain in the chest (localization), radiation. Dyspnoea (at rest and on exercise). Cough: dry or with mucus, relation to any other factors (cooling, smoking, any smells, time of day, asthmatic fits). Sputum and its characteristic, haemoptysis (its intensity, frequency, amount of blood in sputum).
  4. System of digestive organs. Swallowing: easy, difficult, for what food (solid, liquid), pain in the pharynx, neck, its radiation (to the ears, mandible, occipital region). Dryness in the mouth. Dyspeptic phenomena: regurgitation (eructation, belching), heartburn, nausea, vomiting. Abdominal pains: their localization, character, radiation, intensity, duration, alleviating factors. Stool: regular, irregular (constipations, diarrhoea), burning, itching, pain in the rectum, perineum.
  5. Urogenital system. Pains in the renal regions (constant, periodical, fit-like), radiation. Urination: frequency, anuria, oliguria, polyuria, daily and nocturnal diuresis.
  6. Sense organs. Vision: normal, equal in both eyes, weak, double, smarting eyes, pain, gritty feeling, lacrimation.
  7. Skin, musculoskeletal system. Pigmentation, dryness of skin, desquamation, oedema, furunculosis, skin itching. Pain in muscles: its character, relation to the work done or other factors. Pains in joints, bones: their localization, character; changes in the shape of joints, their size, body proportions.

1. Anamnesis of the disease development

The time of the onset of the disease, appearance of its first symptoms, which in some cases did not attract the patient’s attention. One should indicate what the disease began with and what causes its development (supercooling, nervous stress, injury, contact with an infectious patient, operation, burdened heredity, taking of drugs including those for other diseases, etc.), duration, efficacy of the previous treatment, annual exacerbation rate. It is necessary to note the first visit to a doctor. Results of examinations made. Diagnosis. Character of the treatment, which is being given (names and doses of the used drugs), its duration (course, cyclic or continuous therapy), efficacy. Remission, relapses and exacerbations, causes of impairment of state (cessation of treatment, psychic trauma, violation of dietary regimen, etc.). Indicate whether the patient undergoes regular medical check-ups for this disease (if yes, from what month and year), what measures were taken for health improvement. It is important to note whether the patient took medical advice or used self-treatment; also specify what therapy was used and whether it produced any effect. The degree of the disease progress during past years and months. If the student started this examination of the patient some time after his/her hospitalization, it is necessary to clarify the dynamics of the disease, how the patient felt, the efficacy of in-patient treatment before this examination began.

1. Patient’s life history

Indicate the patient’s living conditions, presence of domestic health hazards. His/her beginning of labour activity, presence of occupational hazards, which can produce their effect on the appearance and development of this disease. Characterize bad habits of the patient: smoking (the number of cigarettes a day), drinking, narcomania.

1. Patient’s objective examination

The patient’s state is satisfactory, moderately severe, severe, extremely severe. His/her position in bed is active, passive, forced. The consciousness is clear, dull, soporific, lost (coma). Exophthalmos (unilateral, bilateral), its severity, lagophthalmos, ptosis, equal size of the eye-slits, pupils. Eyeball movements are in their whole scope, restricted (upwards, by the outer edge, inwards, down).

The colour of the skin (normal, pale, subicteric, icteric, bronze, sallow-grey, etc.). Cyanosis (diffuse, acrocyanosis). Haemorrhages. Peripheral lymph nodes (axillary, submandibular, cervical, inguinal, etc.): their size, mobility, consistency, tenderness.

1. Cardiovascular system. Pulse (rate, rhythm, volume, tension, swiftness). Borders of relative cardiac dullness. Auscultation of the heart: rhythm, heart rate per minute, apical cardiac sounds, presence of murmurs (soft, coarse, musical, etc.). Blood pressure on both arms.
2. Respiratory organs. Examination of the chest (normal, asthenic, hypersthenic, barrel, etc.). Evidence of the supra- and subclavicular fossae, intercostal spaces in the process of breathing. Character of respiration (regular, acidotic, Kussmaul, Cheyne-Stokes, stridulous, etc.), rate, depth (normal, shallow, deep). Dyspnoe (expiratory, inspiratory, mixed). Comparative percussion of the lungs: presence of regions of dullness, tympanitis (indicate exact localization, size). Auscultation of the lungs. Character of respiration (vesicular, diminished breath sounds, coarse breath sounds, etc.), presence of râles, their characteristic (dry, moist, sonorous; calibre).
3. Digestive organs. Superficial palpation of the abdomen: soft, tense. Tenderness (local, diffuse). Blumberg's sign. Deep palpation. Percussion borders of the liver. Spleen: palpable, nonpalpable.
4. Urinary system. Visual examination of the renal region, palpation. Pasternatsky’s symptom. Urination: painful, painless.
5. Nervous system. Stability testing in the Romberg position. Tremor of fingers of outstretched arms (fine, large, symmetrical, asymmetrical, stable, disappears after distraction of attention).
6. State of the otorhinolaryngological status

The ENT status is described successively (from up down: ears, nose and paranasal sinuses, pharynx by floors, larynx). In case of a unilateral impairment of the ears, the description begins from the side of the intact ear and proceeds to the sick one. In a bilateral process, the first to be described is the ear with better hearing, and then the ear with diminished hearing.

1. Right ear (AD). The description begins with a visual examination of the auricle and adjacent parts – the mastoid bone in front of the tragus and lower part of ear, then palpation and, if necessary, percussion.

Auricle. Its configuration (integrity of the anatomical relief), protrusion, colour. Describe all anatomical landmarks (both surfaces of the auricle: external, internal; peculiarities of their structure, symmetry. Helix: its crus, body, tail, antihelix, scaphoid fossa, tragus, antitragus, lobe of auricle and degree of its evidence). Provocative investigations: detection of painfulness by pressing on the tragus of auricle with a finger, displacement of the auricle aside. The description of *the mastoid bone* begins with a visual examination of this area. Note the evidence or absence of tuberosity, pastosity and hyperaemia in the postotic area, evidence or smoothness of the transient Rivini’s fold. Palpation should be carried out in the projection of the mastoid bone, antrum, apex. Percussion of the mastoid bone is made in order to exclude periostitis. Note presence or absence of a surgical scar.

Otoscopy. This is done with help of an ear speculum, whose diameter should correspond to the internal diameter of the entry to the external auditory meatus.

External auditory meatus. This is absent, wide, narrow. Describe the evidence of the physiological narrowing of the external auditory meatus in the area of its isthmus, the state of skin in the external auditory meatus (hyperaemia, cyanosis, maceration), exostosis. Describe the character of purulent discharge (absent or present): its smell, colour, pulsation, blood admixture. Polyps, granulations, crusts, cholesteatoma scales, caseous secretion, serumen and epidermal masses.

Tympanic membrane. Its recognition contours at norm are as follows: the nacreous-grey colour, the long and short processes of malleus, evidence of the anterior and posterior Rivini’s folds, a light cone. Reveal whether the tympanic membrane is retracted or protruded, with or without any scars and adhesions. Assess the mobility of the tympanic membrane with help of the Siegle’s funnel, reveal presence or absence of the evidence of its recognition contours (one or several simultaneously), presence or absence of a perforation, in what part (central, marginal, mixed), whether there are polypous formations, granulations, entrance to the attic when checked with the Voyachek bulbous-end probe, carious changes in the bone in the attic projection, cholesteatoma scales, the state of perforation edges in the tympanic membrane. Characterize the discharge (mucous, mucopurulent, sanguinolent, caseous, etc.), its smell (sour, bitter, sweet, etc.). Assess the medial wall of the tympanic cavity, its mucous coat (hyperaemic, thickened). The presence of Schwartze’s sign, patency of the auditory tubes with consideration of 4 degrees (assess them). The same sequence should be followed during examination of AS (the left ear).

1. Left ear (AS).
2. Nose and paranasal sinuses.

In compliance with the above description, at first examine visually the anterior surface of face, where the paranasal sinuses (maxillary, ethmoidal, frontal) are projected to, then carry out palpation and percussion of the projection of these sinuses. Indicate oedema, hyperaemia, tenderness on palpation and percussion. During the next stage, the nose is described (mobility of the cartilaginous part, symmetry of both halves, the root, bridge, sidewalls (projections of flat nasal bones), alae of nose).

1. Anterior rhinoscopy. This is carried out with help of a rhinoscope (the right and left halves of the nasal cavity are described separately). The vestibule of nose: the presence of the hair coat. The state of the mucous membrane (pale, pink, cyanotic, hyperaemic), moisture (low, high, normal). Assessment of the character of the nasal cavity discharge (purulent, mucopurulent, sanguinolent, mucous, crusts, blood, etc.). The presence of tumour-like formations, obturation of the nasal passages with them (partially or completely). Their surface (smooth, tuberous, bleeding – an examination with a bulbous-end probe). The character of smell. Assess the state of the nasal septum (straight, deviated in its bone or cartilage parts (to the right, to the left), a thorn, a crest (to the right, to the left), atrophy, ulcerations, perforation, etc.). The state of the inferior, middle and superior turbinates (atrophy, tuberosity, polypous changes, hypertrophy, etc.). Detection of the nasal respiratory function – the Voyachek test with a lump of cotton wool (an excursion of the cotton wool when breathing with one half of nose). Revealing of open and closed rhinolalia.
2. Middle rhinoscopy. This is carried out with help of the Killian nasal speculum after anaemization of the middle nasal meatus (the right and left halves of the nasal cavity are described separately).
3. Posterior rhinoscopy. This is carried out with help of an epipharyngeal mirror and a spatula. It is necessary to describe the colour, moisture and presence of free secretion. The fornix of nasopharynx; the nasopharyngeal tonsil, the degree of its evidence: degrees I, II, III. Orifices of the Eustachian tubes, Eustachian tonsils. Choanae (free, filled with some mucous or purulent discharge, polypous formations, tumour-like formations, hypertrophy or atrophy of posterior ends of the inferior and middle nasal turbinates, etc.). Mobility of the soft palate.
4. **Pharynx.** Three floors: nasopharynx, oropharynx and laryngopharynx. Note the peculiarity: each floor is examined with its method.
5. **Nasopharynx** (See description above) – posterior rhinoscopy.
6. **Oropharynx**. Mesopharyngoscopy. This is carried out with help of a spatula. Describe the colour and state of the mucous membrane in the oral cavity: the gums, the tongue, the dental formula, the state of the hard and soft palates, veil of palate, anterior and posterior palatine arches (their symmetry, hyperaemia, etc.), the degree of the palatine tonsil hypertrophy or atrophy. The presence of local objective signs of chronic tonsillitis. Note whether rotation of the tonsils produces pus, plugs and caseous masses (press with a spatula on the anterior palatine arch), adhesions with the arches, congestive phenomena in the palatine arches, dilatation of the lacunae. Separately palpate regional and cervical lymph nodes, reveal their tenderness, number, mobility and cohesion with the adjacent tissues. The presence of deep infiltrates in the region of the neurovascular bundle of neck. The state of the mucous coat and lymphoid formations on the posterior wall of the oral part of pharynx, reddening of vessels, pharyngeal reflex (normal, overactive, absent).
7. **Laryngopharynx**. *Indirect laryngoscopy*. Describe the lingual tonsil, the root of tongue, epiglottic valleculae, the mucous coat of the right and left piriform sinuses.
8. **Larynx.** Examine visually the neck, state its symmetry, whether the soft tissues of neck and laryngeal cartilages are tender on palpation. Check the presence of the Sendulsky’s sign (the crunch of the cartilages of larynx when the latter is displaced sideways at norm). Respiration (free, difficult on inspiration, on expiration). Voice: normal, hoarse, aphonia. Indirect laryngoscopy*:* examine the epiglottis, its lingual and laryngeal surfaces. The mobility of the epiglottis during phonation. The state of its mucous coat (hyperaemia, oedema, etc.). The aryepiglottic folds, vestibular ligaments. The vocal ligaments (hyperaemia, hypertrophy, roughness, tuberosity, the presence of mucus, sputum, crusts, etc.). Their participation in phonation, inspiration and expiration (the presence of symmetry, asymmetry). The mucous coat of larynx (hyperaemic, congestive, oedematous, atrophic). Two-three semirings of trachea with its mucous membrane.
9. The scheme of additional laboratory, instrumental and radiological methods of examination of patients. Methods for investigating the acoustic and vestibular analysers.
10. **General examination (date, month, year of each investigation made).**
11. Clinical blood analysis + thrombocytes and coagulability.
12. Blood group and Rh factor.
13. Clinical urinalysis.
14. Blood for sugar.
15. Blood for RW.
16. Radiography or fluoroscopy of the chest organs.
17. Radiography of the paranasal sinuses.
18. Electrocardiography.
19. Consultations of therapists, ophthalmologists, neurologists.
20. Radiography of the petrosal bones by the Schüller method.
21. Nose swabs for flora and sensitivity to antibiotics.
22. Ear swabs for fungi.
23. Ear swabs for microflora and its sensitivity to antibiotics.
24. Acoustic passport.
25. Audiography, tympanometry.
26. Vestibular passport.
27. **The scheme of examination of the acoustic analyzer.**

**6.2.1.** The examination with help of the “live speech” is carried out for an approximate assessment of acuity of hearing. The examined person repeats words or numbers at first in a whisper, using the reserve air in his/her lungs, which has left after expiration. The assessment of the examination results comes to revealing the distance, at which the patient hears speech. At norm, whisper speech is perceived at a distance of 6 m, oral speech at a distance of 10 m (for convenience it is indicated as more than 6 m).

**6.2.2.** The examination with tuning forks (acumetry). At first, carry on quantitative tests of air conduction with help of tuning forks С128 and С2048. Note the time, during which the patient hears sounding of the tuning fork, brought to the external auditory meatus. At norm, it is 90 sec and 40 sec respectively for tuning forks С128 and С2048. In order to examine bone conduction, use tuning fork С128, leaning its leg to the mastoid bone platform. The duration of the perception of sounding is measured with a stopwatch too. At norm, it is 50 sec.

After that pass to qualitative tuning fork tests, which are used for differential diagnosis of the sound-conducting and sound-perceiving apparatuses. These include the Rinne, Federici, Weber and Gellé experiments, where tuning fork С128 is used.

1. The Rinne test (R) consists in the comparison of air and bone conduction. At norm, the former exceeds the latter. In this case the Rinne test is regarded as positive (R+). When the sound-conducting apparatus is impaired (conductive deafness), bone conduction exceeds air conduction and the Rinne test is negative (R–). In pathology of the sound-perceiving apparatus (sensoneural deafness), air conduction of sounds prevails over bone conduction, but the duration of perception of a tuning fork via both bone and air is less than at norm. In this case, the Rinne test remains positive.
2. The Weber test (W) makes it possible to reveal sound lateralization during sounding of a tuning fork, which is put against the crown of the patient’s head. At norm, the sound is heard in the middle of the head (W). In case of a unilateral impairment of the sound-conducting apparatus the sound is lateralized to the involved ear, while in a unilateral impairment of the sound-perceiving apparatus the sound is lateralized to the intact ear. In case of bilateral conductive deafness the sound will be lateralized towards the ear with worse hearing, and in bilateral sensoneural deafness the sound will be lateralized towards the ear with better hearing.

3. The Federici test (F) is carried out for comparing bone and osteocartilaginous conduction, i.e., hearing of sounds from the mastoid bone and tragus. In case of an impairment of sound perception and at norm the Federici test is positive (F+); when sound conduction is impaired, the test is negative (F–).

1. The Gellé test (G) makes it possible to reveal pathology of sound conduction caused by immobility of the stapes in the vestibular window (in otosclerosis). A sounding tuning fork is placed on the mastoid bone, and simultaneously air is compressed in the external auditory meatus with a pneumatic funnel. At the moment of this compression a person with normal hearing will hear some decrease of perception (worse mobility of the sound-conducting system caused by an impression of the stapes into the vestibular window niche) – the Gellé test is positive (G+). If during the compression of air the stapes is immobile, no sound perception will take place – the Gellé test is negative (G-). In pathology of the sound-perceiving apparatus the Gellé test will be positive too.

The presence of any subjective ear noise and results of examination of hearing with help of whisper and oral speech and tuning forks are registered in the acoustic passport (Table 1).

*Table 1* Acoustic passport

|  |  |  |
| --- | --- | --- |
| **Right ear (AD)** | **Tests** | **Left ear (AS)** |
| **-** | SN | + |
| 6 м | WS | 1.5 m |
| > 6 м | OS | 5 m |
| 90 seс | Cl28 (A = 90 sec) | 37 sec |
| 50 seс | С128 (B = 50 sec) | 54 seс |
| 40 seс | С2048 (A = 40 sec) | 26 seс |
| + | Rinne test (R) | **-** |
|  | Weber test (W) |  |
| + | Federici test (F) | **-** |

*Conventions: SN – subjective noise; WS – whisper speech; OS – oral speech; A – air conduction; B – bone conduction.*

Having completed the acoustic passport, one should draw a conclusion about the type of hearing loss: bad sound conduction, bad sound perception, a mixed type. Above (*Table 1*) there is a model of a patient’s acoustic passport in case of a left-sided loss of hearing of the sound conduction type (conductive deafness).

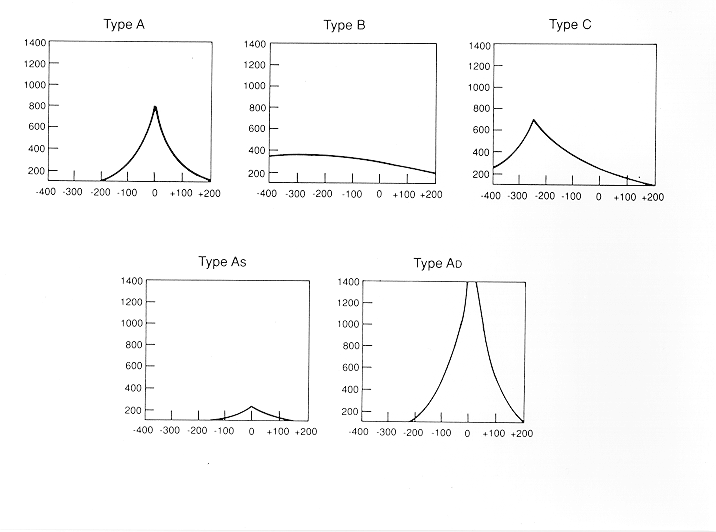
1. Acumetry (speech examinations, tuning fork tests) is followed by examination of hearing with help of electroacoustical equipment. The latter makes it possible to assess the acuity of hearing, the character and level of its loss in different diseases. These techniques include pure tone threshold audiometry and, if necessary, impedometry. Pure tone threshold audiometry is a subjective method of examination of hearing, which makes it possible to reveal perception thresholds for sounds with different frequencies in their air and bone conduction, as well as to differentiate impairment of the sound-conducting, sound-perceiving parts of the acoustic analyzer or its mixed impairment. This is carried out with help of an audiometer. The examination results are put down in a special form, an audiogramme, using the following conventions: “°” – thresholds of perception via air conduction, connected with a solid line, “х” – thresholds of perception via bone conduction, connected with a dotted line.

dBB

By the character of threshold curves of air and bone conduction and their relationships it is possible to detect the kind of hearing loss: conductive, sensoneural or mixed.

When necessary, supraliminal audiometry is carried out.

Impedance measurement is an objective method of examination of hearing, based on measuring the acoustic resistance of the sound-conducting apparatus. This is carried out with help of an impedometer and mainly used for diagnosing different diseases of the middle ear (eustachitis, exudative otitis media, adhesive otitis media, otosclerosis). It includes tympanometry and acoustic reflexometry. Different types of tympanometric curves describe the normal or pathological state of the middle ear.



Curve “A” is registered at norm.

Curve “As” is registered when the tympanic membrane is less flexible than with normal function in the presence of normal pressure in the middle ear (for example, with otosclerosis).

Curve “AD” is registered when the eardrum is more flabby than normal in the presence of normal pressure in the middle ear (for example, when the auditory ossicles are separated).

Curve “B” is registered in exudative otitis media. In this case acoustic impedance (conduction) changes very little, when pressure in the external auditory meatus fluctuates.

Curve “C” is registered in dysfunctions of the auditory tube with appearance of a negative pressure in the tympanic cavity. In this case the minimum value of acoustic impedance (the maximum acoustic conduction) is registered with a negative pressure in the external auditory meatus.

When necessary or there are indications, the acoustic function is examined deeper with help of electroacoustical equipment.

1. The scheme of examination of the vestibular analyser.

The vestibular analyzer is examined in order to reveal its dysfunctions, make differential and topical diagnoses. This examination stipulates detection of spontaneous signs (spontaneous nystagmus, muscle tone changes in the extremities, inadequate gait), making of induced vestibular tests (caloric, rotatory, pressure tests) and their assessment.

1. Spontaneous nystagmus (SpNys) is examined, when the patient sits or lies on his/her back. Nystagmus differs in its direction (to the right, to the left, upwards, downwards), plane (horizontal, vertical, rotational, diagonal), amplitude (small-, middle-, large-swinging nystagmus), rate of vibratory cycles (vivid, sluggish), strength (degrees I, II, III), while induced nystagmus also differs by its duration (in seconds). At norm, no nystagmus is observed. Vestibular nystagmus is directed to the side of the lower component of nystagmus and manifests itself as horizontal-rotational, small- or middle-swinging. Typical for disturbances of the central genesis is vertical, diagonal, differently directed nystagmus.
2. The muscle tone of the extremities is examined with help of the finger-nose and finger-finger indicating tests and Wodak-Fischer test. In healthy people, no deviations of their arms are observed. In labyrinthine impairments, there are harmonious deviations of both arms towards the slow component of nystagmus, whereas extralabyrinthine impairments are characterized by the missing of one arm towards the impaired side.
3. The study of stability in the Romberg test. Describe the Romberg test in a labyrinthine dysfunction (the patient deviates to the side, opposite to nystagmus).
4. The study of the upright gait. In labyrinthine impairments the patient deviates from the straight line to the side, opposite to nystagmus; in cerebellar disturbances it is towards the side of an impaired cerebellar lobe. The flank gait is well done by the patient towards both sides in cases of vestibular dysfunction, but cannot be carried out in cerebellar pathology because of his/her falling down towards the side of impairment.

In order to make differential diagnosis of vestibular and cerebellar impairments, diadochokinesis (pronation and supination with both arms) is studied. If the cerebellar function is disrupted, there is an abrupt delay of the arm on the impaired side.

Induced vestibular symptoms develop after an artificial stimulation of the vestibular apparatus by means of the caloric and rotatory tests. On the basis of the results of these tests a conclusion can de made about normo-, hypo- or hyperreflexia, i.e., about normal, decreased or increased excitability of the labyrinth. The galvanic and pressure tests are used too.

Functions of the otolithic apparatus are tested for occupational selection (work at height, in aviation).

Results of the functional study of the vestibular analyser and some cerebellar tests are registered in the vestibular passport (*Table 2*).

1. Preliminary diagnosis

A preliminary (provisional, hypothetical, likely) diagnosis is grounded on the basis of the patient’s complaints, history of his/her disease development, objective, laboratory, additional and functional methods of examination of the acoustic and vestibular analysers. Consultations with related specialists (neurologists, ophthalmologists, surgeons, gynaecologists, dentists, etc.) are carried out.

***Vestibular passport***

|  |  |  |
| --- | --- | --- |
| **Right side** | **Tests** | **Left side** |
|  | Subjective sensations (SS) |  |
|  | Spontaneous nystagmus (Sp Nys) |  |
|  | Finger-nose test |  |
|  | Finger-finger test |  |
|  | Wodak-Fischer test |  |
|  | Stability in the Romberg position |  |
|  | Upright gait |  |
|  | Flank gait |  |
|  | Adiadochokinesis |  |
|  | Caloric test (water temperature, °С) |  |
|  | Rotatory test |  |
|  | Pressure test |  |

1. Differential diagnosis

Differential diagnosis in each particular case is based on the main symptoms of disease (complaints, objective data), which are taken into account in the examined patient.

Differential diagnosis is made by exclusion of the diseases with similar signs and symptoms. It is reasonable to compile a differential diagnosis table, where the patient’s data are put into.

1. Final diagnosis

This is made on the basis of:

* chief and secondary complaints of the patient;
* history of the disease development (what caused the onset of the disease: supercooling, allergy, etc.; whether there was any previous treatment, its efficacy);
* typical objective data (list them);
* significant laboratory methods of examination (name them);
* additional methods of examination (radiography of the temporal bone, paranasal sinuses, etc.);
* differential diagnosis (confirm the typical signs and symptoms, objective data);
* acoustic passport, audiogramme (if necessary).

***Make the final diagnosis.***

Concomitant diagnosis is made on the basis of typical complaints and development of the clinical picture of the disease too.

1. Aetiology and pathogenesis

Name the main theories or theory of the disease development. Isolate the main link or links of pathogenesis.

1. Treatment of this nosological form of disease according to the patient’s diagnosis

Substantiate the conservative or surgical method of treatment. Indications for surgical treatment, stages, possible complications. Describe the conservative topical and general method of treatment.

1. Journals of medical observations

The journal is written for the time of the patient’s examination. Chief complaints, their dynamics, objective data, which characterize peculiarities in the course of disease, are put down every day. Efficacy (or inefficacy) and adverse effects of the administered drugs are noted, the necessity of replacing some medicines with others is grounded; the way the patient feels, his/her appetite, urinations, defecations, sleep and pulse are registered. A temperature chart is filled in, where all specified columns are completed. There are three journals with registration of the dynamics of *an objective process and its course* under the influence of the given therapy (the 1st journal – on the 2nd day of hospitalization; the 2nd one – on the 3rd-4th days of treatment; the 3rd one – before discharge from the hospital).

1. Prognosis

For recovery, capacity for work, life and function of the organ (the ear, nose and paranasal sinuses, pharynx, larynx).

1. Epicrisis

The following information is briefly stated: the patient’s surname, first name, other names [patronymic], age, date of admission to the hospital, diagnosis, its substantiation with statement of the main data of additional methods of examination required for confirming the diagnosis, given treatment (a list of drugs with their doses), results of the treatment. The way the patient feels before his/her discharge (recovery, improvement, without any changes, the date of his/her discharge, recommended treatment (diet, regimen, drugs), terms for next examination or observation. Measures for rehabilitation. Recommendations for job placement, health resort treatment, regular medical check-ups.

1. List of the literature used

Give a list of the recommended prescribed and additional literature, which was used on the subject of the case history.

Indicate the author, the name of a textbook or monograph, the year of publication, the name of an article and the journal where it was published (the number, the year of publication, pages).

**SCHEME**

**OF THE OTORHINOLARYNGOLOGICAL PATIENT’S**

**CASE HISTORY**

***Manual***

***for fourth-year English medium students***

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