LECTURE COMPLEX

Discipline: "Nervous system and organs of sense and vision in pathology»

Discipline code: NSSOVHBP 3306

Name and code of the OP:6B10115 "Medicine"

Amount of study hours/credits: 30 hours / 1 credits

Course and semester of study:3rd year, 6th semester

Lecture length: 2 hours

Shymkent, 2025y.

The lecture complex was developed in accordance with the working curriculum of the discipline (sillabus) and discussed at a department meeting.

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Lecture No. 1

1.Topic: Methodology of questioning complaints, general examination, features of the anamnesis of the disease and life of a patient with pathology of the nervous system; Methodology of external and local examination of a patient with pathology of the nervous system. General symptomatology of damage to the nervous system. Methods of examination of patients with pathology of the nervous system. Diagnostic value. Methodology of examination of the neurological status in adults. Methodology of examination of the neurological status in adults: examination, palpation, determination (physiological and pathological) of tendon reflexes (rigidity of the occipital muscles, Kernig's signs, upper and lower Brudzinski signs, Babinski sign, etc.).

2. Objective: To familiarize students with the introduction to clinical medicine, to give a general An understanding of internal diseases and the objectives of internal medicine, as well as the fundamentals of medical ethics. Learn the principles of a general patient examination: assessing consciousness, position, skin and subcutaneous fat, and the musculoskeletal system.To train students in the principles of questioning complaints, general examination, the specifics of the medical history and lifestyle of a patient with nervous system pathology, and research methods for nervous system diseases. Identifying nuchal rigidity, Brudzinski's, Kernig's, and Babinski's signs, and the principles of completing a neurological status report.

3. Lecture abstracts:

A doctor's ability to communicate with a patient is crucial. The relationship between a doctor and a patient, as well as the doctor's duties and responsibilities, is called medical deontology (Greek: deon, deonos - duty, logos - reading). Medical deontology is the adherence of medical professionals to ethical rules in the performance of their professional duties.

Now, taking into account the above, we are going to highlight the main directions on the path of clinical research:

1. A disease is a pathological change in the body, therefore it is necessary to distinguish which of them is a pathological change and which is a reaction of the body.
2. Don't view disease as a lesion of a single organ or system, but rather study the function of all physiological systems at the same time. The goal is to determine the type and existence of the disease.
3. Taking into account the principle of the unity of the human organism and the environment, it is necessary to identify the etiological causes, including taking into account the social, political and social situation.
4. The principle of Nervism, i.e. establishing the place of origin and development of diseases of the nervous system, including the nervous system.

METHODS OF CLINICAL EXAMINATION OF PATIENTS

We divide the symptoms of the disease, that is, symptoms (from the Greek symptomoma—direct), into

Subjective and objective. The manifestation of objective changes in the patient's body as perceived by the patient (nausea, dizziness, increased heart rate, pain, etc.) is a subjective symptom. Signs of the disease detected during the patient's examination (liver enlargement, tumors, cardiac arrhythmia, etc.) are considered objective.

The interrogation begins first with collecting the patient's complaints. The importance of human feelings in

Detecting the disease is no less important than an objective examination. Some diagnoses (such as angina or chest tightness) are made based on subjective complaints.
When did symptoms appear, what were their first symptoms, and what changes have occurred since then (anamnesis morbi—recollections of the development of this disease) will help you make your own diagnosis. After the disease history, the patient's life story (anamnesis vitae—recollections of life) is posed. The patient's life story is shaped by their own words or conversations with relatives (see dialogue).
An objective assessment of the patient's condition at that moment (status praesens) is the primary focus of a patient's examination. Along with many research methods—inspection, temperature measurement, palpation, percussion, auscultation—laboratory, X-ray, and other tests reveal pathological changes in the structure of organs and body systems.
Diagnostic research methods are divided into basic and additional.
The main clinical methods include examination, inspection, palpation, percussion and
Auscultation of the patient. The physician should apply these to each disease, and only then, to confirm the diagnosis, will they select the necessary additional diagnostic methods.

PATIENT SURVEY

The method of interviewing a patient is also known as "taking anamnesis." "Aamnesis" comes from The Greek word "anamnesis" means "memory." The interview should be conducted in the following order: 1) documents; 2) complaints; 3) medical history; 4) patient's life history. Reference data includes the patient's last name, first name, patronymic, age, gender, profession, and place of residence. They have their place in identifying various diseases. For example, peptic ulcers, jaundice, cancer, atherosclerosis, myocardial infarction, and others are more common in young people. Therefore, the doctor considers the age of the patient who comes with dyspeptic complaints. If the patient is elderly, he or she first looks for a gastrointestinal tumor, while in a younger person, he or she may have milder gastritis and ulcers. Measles, rubella, and whooping cough are most common in children.

PATIENT COMPLAINTS

The patient's complaints should be considered in both their main and additional forms. Sometimes It can be difficult to determine the degree of their significance. A complaint expressed with emotions is also
may not be directly related to the underlying disease. The physician must accurately determine each primary complaint of the patient. This in itself is an important diagnostic decision. Complaints have a separate place in the sensation of pain inside you. The patient must have a clear answer to the following questions: 1) the location of the pain; 2) its characteristics (acute, chronic, cramping); 3) strength, or progression - 4) prevalence, transmission; 5) the causes that caused the feeling of pain, the time of its occurrence; 6) measures that increase or decrease the feeling of pain (physical labor, nervousness, etc.). Pain in the sternum can arise and stop due to physical exertion or spread with nitroglycerin. And the connection of the disease with food intake - P.I., That is, the appearance on an empty stomach, slowing down after eating, helps to identify the presence of an ulcer
stomach diseases.

HISTORY OF DISEASE DEVELOPMENT

When studying the history of the development of the disease of a sick person (anamneis morbi) it is necessary to obtain specific answers to the following questions: 1) When did you start to get sick?; 2) The first signs (symptoms) of the disease; 3) The causes that caused the disease; 4) The

course, progression (intensification, temporary death, newly added and changed symptoms) of the disease; 5) The research methods conducted to date and the treatment received, its conclusions, the impact of treatment

LIFE HISTORY OF THE DISEASE

A patient's life history (apatneš vitae) is a medical biography that reflects the main stages of his life (infancy, childhood, adolescence, maturity).

Family and hereditary history. Information about the illness and causes of death of parents and close relatives is of great importance in diagnosis, especially in prognosis. Infectious diseases, such as tuberculosis, can be transmitted to multiple people within a family. Pathological heredity often manifests as a predisposition to a disease, which can develop into a disease only under certain conditions. The human body can resist the disease unless a situation arises that aggravates it.

General vision (inspectio) - this method is very helpful in recognizing various diseases.

Doctors sometimes get carried away with other research methods (X-ray, laboratory, instrumental) and do not take into account the crucial importance of physical research methods for diagnosing many diseases.

This method of examination was particularly important in early times, as doctors had no other means of examination and therefore relied solely on vision to diagnose a patient. Nowadays, various sensitive instrumental methods are widely used. Nevertheless, physical examination methods have not lost their essence.

Examination Rules. For a complete examination of the patient, the following rules must be observed: 1. Light entering the room where the patient is being examined is conditional. Under daily electric lighting, yellowing of the skin and mucous membranes of the eyes is unsightly, so in the absence of daylight, it is better to use fluorescent lamps. To visually detect various pulses, respiratory movements of the chest, and movements of the stomach and intestines, when the light falls, pain in the side on which the patient lies, sits, or lies down.

2. The room in which the patient is located should be not only light, but also warm.

The inspection should be carried out quickly and systematically, trying not to remain naked in over a long period of time. The patient is first examined standing and then lying down.

3. The warmth of the doctor's hand and the head of the stethoscope should be approximately close to the warmth of the human body.

4. It is always advisable to carry out a general examination using a certain system: first, look in turn at the signs that have a general meaning, and then at the details of the body (head, face, neck, limbs, skin, bones, joints, skin, subcutaneous layers, hair, ingrown hairs).

The general examination begins with the orientation of consciousness, posture, physique, and then measurements are taken

temperature and anthropometric data are collected. The patient's general condition can be determine by four types: satisfactory (normal), moderate (below normal),

severe and agonizing (with a fatal outcome). Then comes the test of consciousness of the disease. The state of consciousness is determined by the following types: 1) open consciousness; 2) fuzzy Consciousness - the patient cannot identify their surroundings, despite answering the question correctly. 3) Stupor - the patient does not understand their surroundings, simply reacting to snot. 4) Sopor - the patient is constantly asleep and reacts only to loud noises, but does not understand the meaning of what is said. 5) Coma - the patient is unconscious, unconscious; sometimes reflexes also disappear completely.

Body types. The physical structure (constitution) of a person is a combination of Morphological and functional characteristics of the body, which are often passed on from father to child but undergo modification under the influence of the environment, especially the social situation. Changes in body composition occur in accordance with the functioning of the nervous and endocrine systems. Therefore, it is important to consider the types of human temperament. They are as follows: 1) choleric - hot-tempered, strong character; 2) phlegmatic - reserved, simple character; 3) sanguine - reserved, impetuous character; 4) melancholic - hot-tempered, weak character.

Taking into account the morphological and functional characteristics of the human body, Professor M. V. Chernorutsky divided people into three constitutional types: asthenic, normosthenic, and hypersthenic.

Examination of the skin layer. A complaint that calls attention to the condition of the skin layer is Itchy skin. Itchy skin is sometimes associated with changes in the skin (psoriasis), which can may also occur as an external manifestation of diseases of internal organs (liver and biliary tract diseases, lymphogranulomatosis), as well as the first sign of allergic diseases.

The next thing to look out for is a change in skin color. Paleness and reddening of the skin in people with diseases of the autonomic nervous system alternates. A Constant pallor of the skin and increasing pallor with each passing day are observed in the following cases: sudden or gradual bleeding (peptic ulcer, hemorrhoids, gynecological diseases), blood diseases (hemolytic anemia, Werlhof's disease, etc.), acute and chronic infectious diseases, sepsis, malignant neoplasms, poisoning, etc. But sometimes even a healthy person experiences pallor of the face due to poor development of subcutaneous vessels.

Paleness of the skin is also caused by other reasons: compression of the skin vessels during kidney diseases; conditions leading to vasoconstriction (fear, fainting, vomiting, Hypertensive crisis, frostbite); vascular insufficiency (aortic stenosis, aortic valve insufficiency). Particular attention should be paid to sudden pallor of the skin, as in these cases (peptic ulcer, peritonitis, etc.), the patient may require immediate medical attention. Typically, with these conditions, the face suddenly turns pale, dizziness and loss of consciousness occurs, the pulse quickens, and blood pressure drops.

Pallor can vary. In anemia (Addison-Birmer anemia, hemolytic anemia) caused by hemolysis, the skin may appear slightly yellowish; in chlorosis, it may appear greenish; and in malignant tumors, it may appear sallow. In some diseases, the skin color can be a bruise, which is called cyanosis. A dull skin tone is caused by an increased level of previously reduced hemoglobin in the blood. There are two distinct causes: the first is impaired peripheral circulation, the second is insufficient gas exchange in the lungs. Sometimes, both causes occur together, meaning they are found in the same person.

As a result of deteriorating cardiac function, arterial blood flowing from the lungs is oxygenated, but due to slower circulation in the peripheral blood vessels, more oxygen than usual reaches the tissues. As a result, the previously reduced hemoglobin content of venous blood increases. This mold is called downy mildew.

4. Illustrative material: presentation.
5. Literature: listed on the last page of the syllabus
6. Control questions (feedback):
1. What is disease?

2. Name the causes of diseases.
3. Name the inspection rule.
4. What signs should you pay attention to when examining a patient's skin?

Lecture No. 2

Leading clinical syndromes in neurology. Meningeal syndrome and acute cerebrovascular accident. Diagnostic value.
Principles of questioning, collecting anamnesis and objective methods of examination of patients with leading clinical syndromes (meningeal and acute cerebrovascular accident) of the nervous system.
2. Objective: To teach the student to evaluate the main syndromes of pathology of the nervous system organs, as well as important and mandatory aspects of diagnosing the presence of meningeal and hemorrhagic, ischemic syndrome.
3. Lecture abstracts:
Identification of meningeal symptoms
1) Nuchal rigidity symptom - it is necessary to make sure that the patient does not have instability of the cervical vertebrae (e.g. after an injury or with rheumatoid arthritis), and that it is not at risk of herniation; the patient lies on his back, without a headboard; supporting the patient's chest with one hand, the other should be placed under the occipital region and try to bring the chin closer to the sternum. If the symptom is positive, an involuntary contraction of the occipital muscles will make it impossible to bend the patient's head to the chest, causing resistance and pain. The severity of rigidity is measured by the distance between the chin and the patient's sternum. In extreme cases, the tension of the long muscles of the spine is so great that
This leads to spontaneous backward bending of the head and forward bending of the body (opisthotonus). It should be distinguished from other causes of limited head flexion (cervical spine degeneration, Parkinsonism, cervical lymphadenitis, severe pharyngitis).
2) Brudzinski's symptom:
a) upper - bringing the chin closer to the chest during the examination of the rigidity of the occipital muscles causes involuntary flexion of the lower limbs at the hip and knee joints;
b) lower - the same reaction of flexion of the lower limbs, caused by pressing on the pubic symphysis;
3) Kernig's sign - the patient lies on his back; the patient's lower limb should be bent at the hip joint at an angle of 90°, and then an attempt should be made to straighten it at the knee joint.
If the symptom is positive, involuntary muscle contraction will make straightening
in the knee joint, causing resistance and pain. Kernig's sign is a bilateral symptom (unlike Lasegue's sign of tension in sciatica).
The sensitivity of meningeal symptoms in detecting meningitis is very low, especially in newborns and the elderly. Other symptoms suggesting meningitis →
2. Additional studies: lumbar puncture → (determination of cerebrospinal fluid pressure, cytological, biochemical, and microbiological studies [bacterioscopic examination, culture, PCR]); neuroimaging studies (CT, MRI).
4. Illustrative material: presentation.
5. Literature: listed on the last page of the syllabus
6. Control questions (feedback):
1. What are the main clinical syndromes characteristic of pathology of the nervous system?
2. In what pathologies does meningeal syndrome occur?

3. What symptoms can you name that are characteristic of hemorrhagic stroke?
4. How is Kernig's sign determined?