Surgery
Contents module 1

METHODS OF INSPECTION
OF SURGICAL PATIENTS

Guidelines for students and medical interns

МЕТОДИКА ОБСТЕЖЕННЯ
ХІРУРГІЧНИХ ХВОРИХ

Методичні вказівки
для студентів та лікарів-інтернів

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CASE HISTORY OF DISEASE
1. Investigation of the subjective state. The complaints of the patient.
2. History of present illness.
3. History of life.
4. An objective study of the patient:
   a) external examination: general condition, consciousness, position of
      the patient, the skin and mucous membranes, subcutaneous tissue, lymph
      nodes, breast cancer, musculoskeletal system;
   b) The study of the circulatory system;
   c) A study of the respiratory system
   d) Study of the digestive system and spleen;
   e) The study of the genitourinary system;
   f) The study of the nervous system;
   g) Study of the endocrine system;
   h) The musculoskeletal system.
5. Localization of the disease.
6. The preliminary diagnosis indicating the rationale and the need for
   additional research (laboratory, biochemical, instrumental, x-ray, and others.)
   And consulting other professionals. Evaluation made from additional research
   and consultations.
7. Plan of inspection.
8. The clinical diagnosis (basic disease, complications, comorbidities).
9. Treatment of the patient. Justification of the need for surgical
   intervention. Preoperative preparation and prevention of possible postoperative
   complications. The choice of method operation, anesthesia. The combination of
   pathogenetic therapy with other therapies (diet, exercise therapy, replacement
   therapy, physiotherapy, symptomatic, spa treatment, etc.., Diary reflecting the
   dynamics of the disease and treatment measures for the days of supervision of
   the patient, the signature of the curator).
10. Epicrisis.
11. Forecast of the disease in relation to the patient's life, his
    rehabilitation (recovery and disability).
12. References in writing history.

Study of subjective states
Initially, the patient is given the opportunity to state their complaints
themselves. In the future, the curator clarifies the major and minor complaints,
clarify the sequence in which they occurred, and what relationship exists between
them. When there is pain, pay attention to the character, intensity, location and
irradiation. It is necessary to clarify the connection of pain with movement,
physical exertion, food intake, urination, defecation act, as well as other external
factors: hypothermia, change of weather, season, etc. It is important to clarify
the duration of pain, if they are accompanied by feelings of fear, anguish. In
severe patient's condition, you should formulate questions so that the patient can answer in one word.

After clarification and detailed complain, it is necessary to undertake a systematic survey of the patient in terms of the basic functions of the body in a specific pattern. Particular attention should be paid to those violations, which may be relevant to the disease. An additional survey of the patient according to the following scheme:

1. The respiratory system. Identify the nature of breathing (free, labored through the nose, through the mouth), if there are nasal discharge, the amount and type (transparent, festering, bloody). If nosebleeds, indicate their profusion, duration, frequency and the cause of the alleged. Detailing pain in the chest, state their intensity and location, frequency, in connection with which they arise, where radiating. We attach great importance to factors that increase the pain in the chest (deep breath, cough). In a survey of the patient's complaint, it is desirable to identify those who have ME

2. Cardiovascular System. If you have complaints about the heart it is advisable to clarify its nature, frequency, duration, and, if possible, the causative factors (agitation, fatigue, night work). Pain in the heart may be periodically or continuously, of varying intensity and significance irradiation. Important complaints are those in the lower limbs: their symmetry, location and duration (there in the evening, after sleep or permanent). Detailing the complaints of pain in the lower extremities, find out the cause and time of their appearance. Pain may occur periodically in the form of intermittent claudication, is often accompanied by increased chilliness, feeling of pins and needles, numbness of the limbs. Note the presence of a headache, dizziness, decreased vision, memory impairment.

3. The digestive system. After asking what the patient's appetite (good, fair, poor, "wolf"), you should pay attention to taste (bitter, sour, unpleasant), the amount of fluid drunk per day, thirst, salivation, aversion to any Food. Most of the diagnostic value are subjective data such as getting liquid food into the trachea, free, difficult or painful passage of food through the esophagus, character

Regurgitation (air, received food, gastric contents) and its smell (no smell, like rotten eggs, fecal). Full transcript of dyspepsia (heartburn, nausea, vomiting), the determination of their intensity and duration, taking into account the causative factors – an important element in the diagnosis of surgical diseases of the gastrointestinal tract. The curator is to imagine a logical sequence

These violations, specifically focus complaints of the patient and give them some praise. For the diagnosis is extremely important, for example, such data when there was vomiting, whether it is connected

Write to the reception, the amount of vomit, smell, color, and others. When there are complaints of abdominal pain, you need to know their location (in the pit, hypochondria, iliac or inguinal region, during bowel movement, character (permanent paroxysmal, acute, and obtuse) irradiation (girdle, under the shoulder blade, in
the chest), and communication with the meal. It should also take into account the physiological characteristics of the bowels: carminative (not free, in large quantities), defecation (independent after the enema, frequent urge the color of bowel movements (mixed with blood, tarry, with the presence of mucus or pus)

4. The urinary system. Characteristics of pain in the lumbar region (paroxysmal, persistent, radiating to the back or external genitalia), should be supplemented by data on urination (free, difficult, painful, constant leakage of urine drop by drop), the amount of urine per day, and those of its features, as color, the presence in urine of mucus, pus, blood. Pay attention to urinary frequency depending on time of day.

5. The nervous system. In terms of identifying the main signs and comorbidities, the patient’s mood is important (optimistic, cheerful, depression, anxiety), the adequacy of responses to various stimuli, the ability to quickly transition from sleep to wakefulness. In the same section should reflect subjective data concerning the state of the senses (sight, hearing, smell, touch).

6. Musculoskeletal system. In case of complaints of pain in the muscles, bones and joints should determine their nature (permanent, acute, obtuse), the relationship with the seasons, weather and other factors.

After completing the study of the subjective complaints of the patient, it is necessary to detail and in a certain sequence to state in history. It should be guided by the following scheme-guide:

1) To describe the complaints of the patient due to the underlying disease and its complications. Reads complaints related to co-morbidity;

2) Obtained in the study of subjective data grouped into complaints of a general nature, local and complaints relating to other organs and systems. For example, complaints of a patient with dumping syndrome can be divided three groups of complaints: general (dizziness, fatigue, drowsiness, tinnitus, tremor of the extremities), local (feeling of pressure and a feeling of fullness in the epigastric region during meal or 15–20 minutes after a meal) and related dyspeptic disorders (salivation, heartburn, belching, rumbling in the abdomen, diarrhea).

**HISTORY OF THE DISEASE**

In history it is necessary to describe the onset of the disease, as well as the sequence of its clinical manifestations, especially the pre-hospital period. The curator is to find out exactly where the disease originated, and in emergency surgical conditions – how many hours ago. He should also detail and find out how the disease developed: gradually or suddenly, any remedial measures carried out in the pre-hospital period and their effectiveness. Particular attention is paid to establishing possible causes of the disease. Beginning with the first symptoms and admission to detail the growth of the clinical picture of the dynamics of personality and find out the pathological process in this patient. In some cases, medical history include the most characteristic thing about the
disease to describe the conclusions of medical institutions, where the patient was before entering the clinic, as well as information concerning the biochemical, laboratory, X-ray and functional investigations conducted before admission.

If the patient is being treated for a long time for chronic diseases, you should describe the disease with all the features and data of diagnostic tests and the results of the treatment. In those cases where the patient is unconscious, history of the disease should be checked with relatives or medical personnel who accompanied the patient in the clinic.

In describing the history of this disease, be guided by the following scheme:
1) Set the beginning of the disease (sudden, gradual);
2) describe the sequence of origin of symptoms and their relationship to each other;
3) Present the most likely proposed causes of disease;
4) Describe in detail the development and course of the disease before the arrival of the patient to the hospital and during his stay in the clinic before Supervision.

**HISTORY OF LIFE**

Details of this important section of the study of the patient should also be systematized and presented in the following order.

1. Medical Biography of patient: the conditions of his work and life, attitude toward military service, especially family life. It should described in detail, the birthplace of the patient as the child grew in comparison with their peers, as he learned. Pay attention to children's and youth periods of physical and mental formation of the personality of the patient, conditions of school and work. Detailed description of puberty in women, indicate the time of occurrence of menstruation, their recurrence, number of pregnancies, births, abortions, miscarriages. Characterizing marital status, describe the health of his wife (husband), children. The information about participation in wars, serve in the army is important. This section ends with a description of life history, character, work, sick lately.

2. Transferred to the chronological order of illness and injury. It should be mentioned, the use of antibiotics, hormones, blood transfusions, anticoagulant in treatment and their complications. Special mention of diseases such as tuberculosis, syphilis, allergic reactions to the use of drugs.


4. Bad habits. It is necessary to elaborate on details of the abuse of alcohol, smoking, drugs and drinking habits indicate strong coffee, tea, and pay attention to the excesses in the diet.

**Objective research**

1. External examination of the patient. First describe the general condition of the patient (satisfactory, moderate, severe, agony), his consciousness (clear,
confused, unconsciousness) and position in bed (active, passive, involuntary). Be sure to pay attention to the expression of the patient (calm, excited, indifferent, mask-like), figure (normosthenic, asthenic, hypersthenic), fixed height in centimeters, weight in kilograms and body temperature. Giving a general characteristic of the skin, note the color (pink, pale pink, pale, red, icteric, cyanotic, earthy, bronze), turgor and elasticity, as well as the presence of areas of depigmentation, scars, rashes, tumors, bruises; especially hair growth (male or female type). Examination of the mucous membranes, conjunctiva, nose, lips, mouth and pay attention to the color, the presence of lesions, erosions, ulcers, leukoplakia. Tongue may be wet, dry and dryish, surrounded by white, gray or brown coating. In describing the tonsils determine their color and value; give a characterization of dental formula. Along with the determination of the degree of development of the subcutaneous tissue (weak, satisfactory, excessive) note the uniformity (or unevenness) of its distribution, and skin pastosity or edema. During inspection and palpation of lymph nodes (submandibular, cervical, axillary, inguinal, and retroperitoneal) find out their cohesion with subcutaneous fat, texture, size, tenderness.

In the same section provide data from examination of mammary glands: the symmetry, size, shape and the presence of nipple discharge (serous, hemorrhagic, and purulent). On palpation of the prostate in vertical and horizontal position of the patient, it is impracticable to determine the development of adipose tissue, the nature of lobular structure, the presence of seals and tumor formations.

2. Study of the respiratory system. After inspection of the chest, describe its shape (cylindrical, conical, barrel-shaped, narrow, flat, etc.), Type of breathing (thoracic, abdominal, combined), and the participation of both halves of the chest in the act of breathing. Pay attention to the state of the intercostal spaces with a deep breath and exhalation. On the chest is determined painful places, swelling, compression and voice tremor (weakened, unaltered, increased). The method of comparative percussion in symmetrical parts of the chest determines the nature of the sound (clear lung, blunted, tympanic, and boxed), height standing tops, the boundaries of the lungs. Auscultation produce symmetrical sites, starting with the subclavian pits. At the same time determine the character of breath sounds (vesicular breathing, rigid, bronchial, amforicheskoe mixed), quantity, and location of the sonority of wheezing (dry, wet, coarsely and finely) and pleural rub.

3. Study of the circulatory system. The study of the circulatory system begins with the definition of pulse on the arteries (radial, temporal, carotid, brachial, femoral, subclavian, zadnebertsovyh, the back of the foot), frequency, and voltage of pulse filling. Pay attention to the presence of varicose veins in the thorax, abdomen, extremities, as well as seals and pain along the vein. Important are pastose and asymmetric limb edema. Determine blood pressure (maximum, minimum, pulse), and the border of the heart. Percussion is impossible to define the boundaries of relative and absolute cardiac dullness. Auscultation, pay attention to heart sounds (clear, the deaf, the splitting of the second tone), their frequency, rhythm and attitude to serdech-phase activities.
Pericardial noises are heard in different positions of the patient. Non-cardiac noise are determined by their relation to the phases of respiration.

4. Investigation of the digestive system. On examination of the abdomen define its shape (round, retracted, asymmetrical), part of the front wall in the act of breathing, the presence of visible peristalsis. In addition, it is possible to detect the visible pulsation in the epigastric region, the divergence of the abdominal muscles, hernial protrusion, straining and coughing. The method of determining the state of the superficial palpation of the abdomen, its resistance, strain of abdomen muscles, tenderness and its location, area of skin hypersensitivity and pain points. It is necessary to identify and fix the medical history and condition of the umbilical inguinal rings and the presence of symptoms Shchetkina–Blumberg. With deep methodical sliding palpation method Obraztsova Strazhesko and consistently determine the location, condition and pain of the sigmoid colon, the cecum. Determine soreness at the points Mc Burney and Lanza, Rowing’s symptoms, Sit Minkowski, vockreseniya or Sunday sign, Krymov, Obraztsova, and others. In the same manner and subject to the same data examine ascending, transverse colon, descending colon, determine the presence of tumors, infiltrates. With deep sliding palpation of the epigastric region palpate stomach, define pain (local, diffuse) of individual sections of the small and large curvature, pyloroduodenal region, bulbs of duodenum, ulcer, note the presence of visible peristalsis, infiltrates, tumors, deformities, asymmetries. A study of the liver begins with a tour of the lower third of the chest and right upper quadrant. Palpating particular edge of the liver (sharp, dull, soft, smooth, dense, and lumpy) and its borders. Exploring the gallbladder, pay attention to its character, value, mobility, pain, and hypersensitivity zone.

In the study of pancreatic area, inspect the epigastric region. Palpably determine the shape, size and consistency of the prostate, pay attention to the presence of infiltration, tuberosity, and tumors. In determining the boundaries of the spleen palpation start with left groin, scrutinize the state of the left side of the abdomen and the left hypochondrium in the supine position on the right side. The history record, data from studies on the consistency of the spleen (firm, elastic, soft), the surface (smooth, nodular) and pain. When viewing the anus, note the presence of external hemorrhoids, prolapse of the rectal mucosa, the presence of warts, fistula, and fissures. At manual study, it is impracticable to determine the tone of the sphincter, the presence of internal hemorrhoids, infiltrates, polyps, tumors. It is extremely important to be considered in the identification of rectal mucus, pus, bleeding.

5. Investigation of the genitourinary system. After inspecting the psoas and groin, by palpation determine the lower pole of the right and the left kidney of the patient in the supine position, resting on the side. Pay attention to the location of the kidneys, their size, mobility (smooth, bumpy), and tenderness; define symptom-Pasternatsky. Inspection, palpation and percussion of the bladder reveals the presence of infiltrates asymmetries tumors. Perform digital
examination of prostate through the rectum and describe its size, consistency, indicate the presence of the tuberosity, and other fluctuations.

6. A study of the nervous system. Determine the patient's mood (cheerful, depression, anxiety) and sociability, his orientation in the environment. Identify reflexes (conjunctival, corneal, tendon), pain along the nerve trunks, muscle stiffness, and skin sensitivity (pain, tactile, temperature), hyperesthesia, paresis, paralysis. Explore demographics, its character (red, white) and length.

7. Study of the endocrine system. After inspection and palpation of the thyroid gland define its borders, shape, texture, surface, displaceability during swallowing, fusion with the surrounding tissue and pain. Note the presence of obesity, gigantism, exhaustion, pigmentation (with Addison's disease).

8. Musculoskeletal system. Determine the overall development of the muscular system, the tone, the presence of infiltrates tumors, atrophy, and hypertrophy. During inspection and palpation, pay attention to the symmetry of limb bones, skull shape, deformation of the chest and spine (kyphosis, lordosis, and scoliosis), and pelvic bones. It is necessary to check the amount of active and passive movements of the joints, pain under pressure, the presence of deformities of the joints, fluctuations, and other tumors.

Site of disease
The localization of the disease after a careful study, described in a certain sequence: data inspection, palpation and auscultation. For example, when describing patients with abdominal pathology should start with the skin, tongue, visual inspection of the abdomen, and so on. Then describe the main symptoms of the disease. In describing the wounds, fistulas, be sure to note the size, nature, number.

PRELIMINARY DIAGNOSIS
On the basis of patient complaints (are the main complaints), the history and objective examination (describe the main symptoms of the disease), as well as the laboratory, radiological, instrumental and other additional methods of investigation, reflecting the underlying disease, its complications and comorbidities, we can supply the following diagnosis. In order to establish the clinical diagnosis of patient we need to survey

Plan of inspection:
2. Urinalysis.
3. Analysis of urine (daily) for sugar.
4. The residual nitrogen, urea, creatinine of blood.
5. The contents of potassium, calcium, sodium, chloride in the serum.
7. General protein and protein fractions.
8. Expanded coagulation.
10. The content of bilirubin levels.
11. Diastase blood, urine.
14. Scan.
15. Determination of the main exchange.
16. Test for unconjugated bilirubin.
17. ECG.
18. Analysis of gastric juice with histamine load.
19. Duodenal intubation.
20. Special methods of examination: endoscopy, X-ray, ultrasound, CT, X-ray, bronchoscopy, cholecystitis, cholangiography, cystochromoscopy, sigmoidoscopy, colonoscopy, laparoscopy, and others.

**CLINICAL DIAGNOSIS**

Based on the above patient complaints, anamnesis of disease and life, as well as the results of additional research methods, we can put a clinical diagnosis.

In justifying the clinical diagnosis, only those studies that were obtained after the description of the preliminary diagnosis, reflecting the underlying disease, its complications and comorbidities are used.

**Treatment and prevention**

If the diagnosis reveals complications and comorbidities, the physician must determine the surgical approach and develop a plan for comprehensive treatment.

Description of therapeutic interventions should be done in the following order: patient treatment, diet, preparation and conduct of surgery, physiotherapy and medication.

The surgical hospitals generally carry out the following treatments: 1) surgery, 2) diet, 3) physical therapy, 4) substitution therapy, 5) symptomatic therapy, 6) rehabilitation.

One of the important stages of treatment – rational preoperative preparation of the patient, is aimed at improving the body's immune-biological and sanitation foci of chronic purulent infection.

1. Preoperative preparation. The duration and content of remedial measures in the preoperative period is determined by the main indicators of the functional activity of vital organs and systems, as well as the estimated volume of surgical intervention.

Preoperative preparation is to correct the identified violations of the water and electrolyte balance and protein, acid-base balance, as well as to stimulate the body's defenses (due to blood transfusion, dietary, vitamin-monotherapy, etc.). Much attention should be paid by the curator to the treatment of concomitant diseases that can be in the postoperative period which create an unfavorable background for the recovery of the patient. In order to prevent various complications in the postoperative period before surgery is necessary to sanitize all the centers of a chronic purulent infection (tonsillitis,
carios teeth, otitis, pyoderma), which, where appropriate, should be invited to another specialist (dentist, otolaryngologist). This section, preoperative medical history, complete case history, which indicates the underlying disease, its complications and comorbidities, justify the need for surgical intervention.

The preoperative epicrisis should list the main indicators of laboratory, instrumental and radiological studies on the organ, which will be produced by surgery, indicated and justified incision access and the method proposed transaction. In conclusion, the curator notes consent of the patient for surgery, type of anesthesia, and substantiates the need for sedation.

In addition to these studies, in each case perform targeted analysis, enabling to find out the function of the body, which is supposed to surgery. For example, in complicated ulcer (penetration, bleeding) or in diseases of operated stomach additionally should undertake the following studies: an analysis of stomach contents, empty stomach and with the stimulation of histamine and insulin, X-rays and X-rays of the gastrointestinal tract, with evidence – gastroscopy, biopsy of mucosa and study of washing water, the content of diastase in blood and urine, propensity for dumping syndrome, and others. In this case, additional research will allow doctors to determine the surgical approach and choose the most efficient method of surgery (resection of 1/2, 2/3, 3/4 gastric vagotomy with drainage surgery, gastrectomy, vagotomy and supplemented by others.).

2. Minutes of the operation. The minutes of the curator is to articulate the postoperative clinical diagnosis, the name, date, and duration of surgery, type of anesthesia, as well as to record the name and patronymic of the surgeon, assistant, anesthesiologist, and surgical nurses.

If the operation is performed under local anesthesia, or potentiated, you must specify the concentration and amount of spent solution of Novocain. Inhalation (intubation) and intravenous anesthesia neuroleptanalgesia data, and the amount of spent narcotic drugs should be detailed in the anesthetic map.

Driving protocol operations:
• Treatment of the surgical field (iodine, film-forming substances);
• Skin incision (shape, length, height);
• Particular surgical approach;
• Data audit and inspection bodies (thoracic, abdominal);
• A detailed description of the detected organic changes;
• The final choice of method of surgical intervention and its rationale;
• Sequence of the various stages of operation;
• A description of any complications during surgery (bleeding, wounded nearby organs, perforation of hollow organs, hematoma, and others.);
• A description of the operated organ after its reconstruction (sutured stump leak, anastomotic patency, and others.);
• A description of the remote organ or a part thereof (macro preparations);
• Particular transaction (increased bleeding, pronounced adhesions, etc.);
• Particular closure of surgical wounds (plugging, drainage).
3. Postoperative period. After surgery in severe condition of the patient is 3–4 days in the intensive care unit under the supervision of the surgeon and the anesthesiologist. With a view to the prevention and timely detection of various complications (internal bleeding, peritonitis, pneumonia, thromboembolism) curator systematically monitors the patient. It should be every day to observe and record the history of the disease, blood pressure, heart rate and breathing, to describe the state of the chest and abdomen, physiological functions. It is mandatory registration of water-electrolyte and protein metabolism, acid-base balance, blood coagulation properties and their correction. In the postoperative period to determine the function of the cardiovascular, respiratory and other systems as well as before the operation, widely used laboratory, instrumental and radiological diagnostic methods. Postoperative treatment generally should be multidimensional and include diet, pathogenetic, symptomatic, physiotherapy and other treatments. Assigned medications should be recorded in the history of the disease in the form of prescription formulations with an indication of the concentration, dosage and time of medication. In the event of post-operative complications is necessary to describe in detail the features of their clinical manifestations, to justify the additional therapeutic measures. One of the essential conditions for rational postoperative patient - physiotherapy; this kind of preventive therapy must be reflected in history.

4. Diary of patient care. The disease is reflected in the diary of observations of patients in which the curator series presents the dynamics of the subjective condition of the patient and the data of objective research. The diary should describe the general condition of the patient, his sleep, appetite, tolerability and efficacy of therapeutic interventions. In addition to blood pressure, heart rate and respiration, Entries should reflect the data inspection, palpation and auscultation, on the chest and abdomen. One of the important sections of the diary - dynamic observation and description of the location of the disease (post-surgical wounds, fistulas, scar infiltrate). It should describe in detail the state of the dressing, the quantity and nature of the secretions from the wound, indicate the presence of necrotic tissue, granulation, infiltrates. In a diary note the removal of the drainage tubes and micro-irrigators, application of dressings with antiseptic solutions, the nature of the healing of surgical wounds. During Supervision 4-5 to write a diary, reflect the objective and the subjective condition of the patient.

**EPICRISIS**

This section is a detailed extract from the case where the surname, name and patronymic of the patient's age when he entered, with any diagnosis, conducted survey, treatments, surgery, when issued and what the final diagnosis is.

**PROGNOSIS**

Here the prognosis for treatment and life should be described.
Навчальне видання

Хірургія
Змістовний модуль 1

МЕТОДИКА ОБСТЕЖЕННЯ ХІРУРГІЧНИХ ХВОРИХ

Методичні вказівки
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