Propedeutics to internal medicine as introduction to clinic of internal diseases. The main methods of patients' examination. Anamnestic part of case history

Topicality

- It is caused first of all by **importance of understanding** of such **terms** as "internal medicine", "propedeutics to internal medicine", "disease", "health", "diagnostics" and their essence.
- Future physicians must know that **successful treatment becomes only possible with correct diagnosis**, identification of the course of the disease, specific signs and course of the disease.
- Great role in diagnostics belongs to the main methods of patient's examination, questioning particularly. **Sometimes information obtained during interview is sufficient to correct preliminary conclusion.**

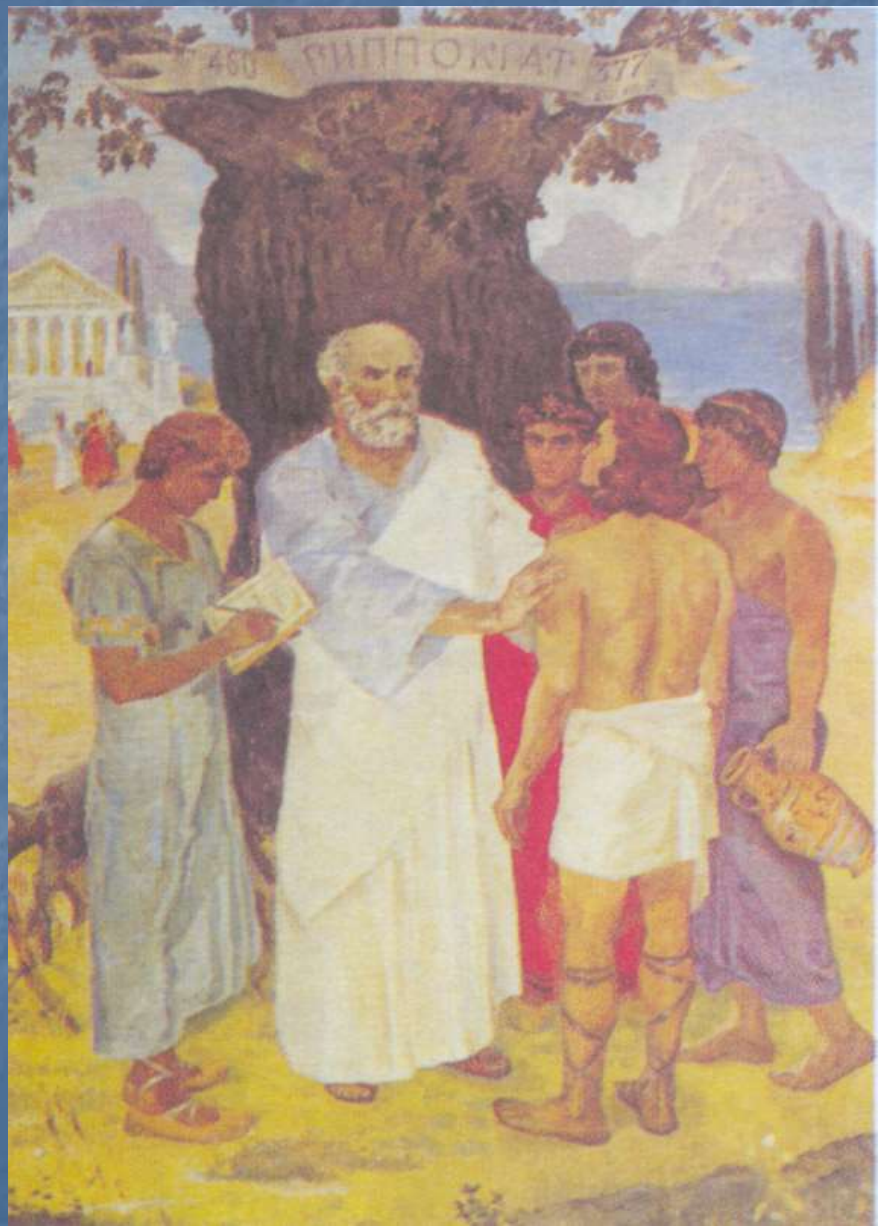
Conception about internal diseases

- **Morbi interni** is branch of clinical medicine, which studies etiology, pathogenesis and clinical manifestations of diseases of internal organs, work out methods of their diagnostics, treatment and prophylaxis.
- Groups of diseases, which are united by means of two signs: by localization of lesion (cardiology, pulmonology, etc.) and by method of treatment (diseases are treated by conservative method) are studied.

- Until XIX century therapy (Gk therapia - treatment) included all today's highly specialized profession.
- According to list of WHO, there is 180 medical specialities now, but patient is one.
- Methods of examination, which are used for diagnostics of diseases of internal organs, have universal value and are used in surgery, gynaecology and other branches of medicine.

History of development of clinical medicine

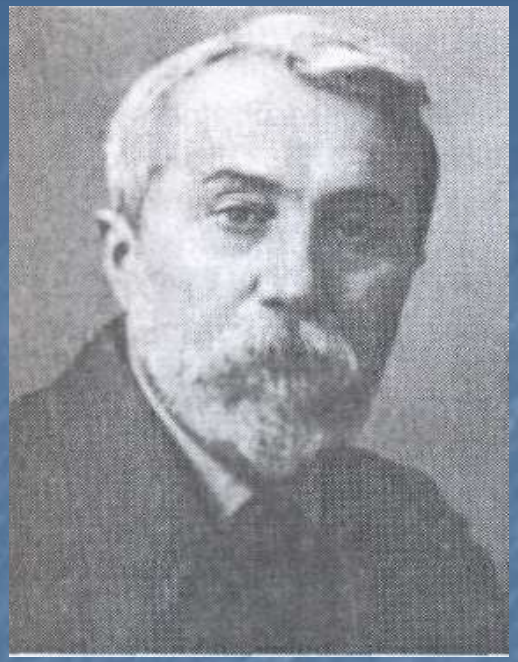
- Medicinal art of antiquity reached its climax during work of eminent ancient Greck physician *Hippocrates* (460-377 years B.C.), which described external signs of many diseases, created doctrine about basic types of body and temperament, transformed patient's inspection into strictly medicinal method of examination, was able to treat various feverish states.



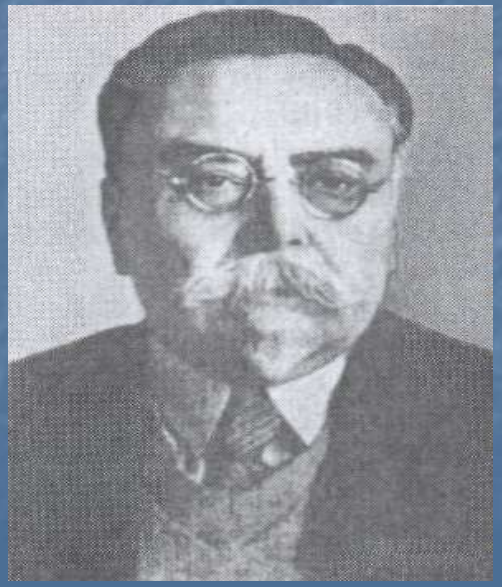
- *Agapy Pechersky* and his followers were first physicians in Ukraine.
- University with medical faculty, one of the oldest establishments of Europe, was found in Lviv on the base of Jesuitical Academy in 1661.
- From 1802 the course of medicine was introduced into Kyiv-Mogylanska Academy.
- First real medical school in Ukraine was found in Kharkiv in 1805.
- Clinical physicians of Kyiv therapeutic school V.P. Obraztsov, F.G. Yanovsky, M.D. Strazhesko, M.M. Gubergrits and others make valuable contribution to development therapy.

Physician in the house of peasant (painters A. Kryzhopolsky, L. Kozachenko, sculptor S. Britay)

Professor V.P. Obraztsov is examining patient
(painters A. Kryzhopolsky, sculptor S. Britay)



F.G. Yanovsky



M.D. Strazhesko

L.T. Mala

K.M. Amosova

V.M.Kovalenko

V.Z. Netyazhenko

Conception about disease

S.P. Botkin considered the main and essential tasks of practical medicine are the following ones:

- Prevention of disease;
- Treatment of disease, which develops;
- Relief of ill men's suffering.

Health and disease

- ***Health*** is characterized by absence of lesion, i.e. by anatomical and functional integrity of organism, by sufficient adaptation to conditions of environment.
- ***Disease*** is life, course of which is disturbed as result lesion of structure and function of organism under influence of external and internal factors at mobilization of its compensatory-adaptive mechanisms (WHO).

Reasons of diseases:

- Mechanical (traumas, concussions);
- Physical (high or low temperature, electrical current, light, radiation);
- Chemical (industrial poisons, military poisons, etc.);
- Biological (action of microbes and their toxins);
- Psychogenic;
- Genetic (inherited).

Trigger factors of diseases:

- Social factors (housing conditions, professional conditions , social position);
- Unfavorable life conditions (agitation, overstrain, improper feeding);
- Weakening resistance due to congenital or acquired defects and properties of organism.

Peculiarities of course of diseases

- ***Acute diseases*** **-** disease begins suddenly with fast increasing of clinical signs and is taking its rather short course.
- ***Chronic diseases*** are characterized by long course with slow increasing of clinical signs (*progressive course*) or with exacerbation periods (*undulating course*).
- More severe disease considers as ***basic disease***, and other one - as ***concomitant disease***.
- ***Complication*** is appearance of more severe disease during basic disease (for example, peritonitis in acute appendicitis, etc.).

QUI BENE DIAGNOSCIT, BENE CURAT.

- ***Diagnostics*** is the part of medical science, in which methods and course of patient's examination process, supervision and reflections of the physician in connection with recognition of disease and estimation of the patient's condition with purpose to prescript necessary treatment and prophylactic measures are stated.
- A short conclusion of physician about the essence of the disease and the patient's condition, expressed in terms of modern medical science, is named ***diagnosis*** (Gk diagnosis - recognition).

Types of the diagnosis

According to degree of validity (substantiation) the following types of diagnosis are distinguished:

- *Preliminary diagnosis*;
- *Clinical diagnosis*;
- *Final diagnosis*.
- ***According to time of revealing of disease*** *early* and *late* (delayed) diagnosis are distinguished.
- Sometimes in unknown cases diagnosis can be made only as result of successful patient's treatment. Such diagnosis is named *diagnosis ex juvantibus*.

Prognosis (Gk prognosis - foresight)

- ***Prognosis*** is foresight of development of consequences and end of disease, substantiated scientifically.

There are the following ***types of prognosis***:

- *Prognosis for life;*
- *Prognosis for recovery;*
- *Prognosis for further development of disease;*
- *Prognosis for capability of restoration of certain organs or systems of organism;*
- *Prognosis for working ability.*

General prognosis can be *favorable*, *doubtful* or *uncertain*, *poor* or *unfavorable*, and *very poor*.

- Higher medical establishment has three therapeutic chairs, where student in succession studies one of the most important disciplines - internal disease.
- The Chair of Propedeutics to Internal Medicine is one of the most important among them as skill to examine patient and knowledge of the basic data about pathology of internal organs are necessary for any physician.
- **Propedeutics** (Gk *propos* - introduction) to internal diseases is preparatory introductory course to study of clinical discipline "internal diseases". It forms base of knowledge.

Subject of diagnostics:

- *Medical diagnostic technique*, i.e. methods of patients' examination (physical, laboratory and instrumental);
- *Semiology* or conception about pathogenesis and diagnostic value of revealed symptoms (signs of diseases) or syndromes.
- *Methodology of diagnosis* .

- Skill to carry out general examination of the patient is necessary particularly for family physician, which will perform systematic medical supervision of patients from birth during whole their life in conditions of introduction of insurance medicine. For this purpose he/she side by side with classic examination methods must understand value of modern instrumental and laboratory technologies, be able to analyze their results, know bases of prophylaxis and treatment.

Methodology of diagnosis

- *Synthetic* or methodical way of diagnostic examination is used. It needs observance of essential rule - to examine of the patient completely - from head to foot.
- Every practical physician knows that incomplete examination of the patients is reason of diagnostic mistakes most often.

Criteria of diagnostic methods of examination:

- *Safety of method* - method doesn't be more dangerous than disease as to a certain degree dangerous invasive methods are used for diagnostics more often;
- *Simplicity of method*. Practically the most simple is immediate clinical examination, as laboratory-instrumental methods depend on presence of equipment, reagents, and specialists;
- *Economy of method;*

- *Objectivity of method* foresees minimal subjectivity in estimation of carried out examination. It caused simplicity of verification of obtained results by other physicians;
- *Truth of diagnostic examination;*
- *Specify of used method*, allowing to estimate obtained results critically.

- For verification of probability of obtained results it is necessary do not overestimate and do not see in absolute terms the results of one of the diagnostic methods (even most modern), but *compare of them with results of other methods of examination.*
- *All symptoms and syndromes must be taken into account in the aggregate,* logical connection, taking into consideration results of laboratory-instrumental examination.

- It is necessary *to prefer to clinical manifestations of disease* (except rare cases).
- Disparity between clinical signs and results of additional methods of examination forces to verify one or other before preferring to one of them.
- It is more difficulty when the patient has several diseases and their signs are deposited or overridden. Then it is necessary to choose dominant signs or syndromes.

Basic principles of diagnostic thinking:

- Nosologic;
- Syndromic;
- Diagnostic algorithm;
- Differential diagnostics.

Nosologic principle

- It is diagnostics (revealing) of diseases, basis of which is known signs about concrete manifestations of various diseases (nosologic units). It is standard principle. Diagnosis is considered as made if signs of illness of this patient coincide with signs of certain nosologic disease (signs kept in physician's memory or corresponding literature), symptoms of which are considered as standard. Principle has unrestricted scope for accumulation of new data and is traditional basis of study of clinical medicine.

- Defects of principles are in contradiction between universally nosologic information system about disease and practice of their diagnostic; it obliges physician to hope for his/her memory only and to prescribe plenty of additional examinations. It causes impossibility of fast making of diagnosis, which based on little amount of additional examinations with using of little amount of determinant symptoms.

Syndromic principle

- It recognition and delimitation of diseases, basis of which is operations of thinking, connected only with that circle of pathologic processes and diseases, which manifested by common *leading syndrome* regardless of their belonging to different nosologic units, groups of diseases or lesions of different organs and systems. For example, "hepatolienal syndrome".
- Advantage of this principle is the following: syndromes are distinguished so that it is impossible to confuse them. All further work is done inside of syndrome.

Diagnostic algorithm

- It is punctual universally description of step-by-step realization of elementary cogitative operations and acts in certain consequence for making of diagnosis of all diseases, which manifested by this leading syndrome.
- Algorithmic thinking allows at minimum of stages of optimal thinking to differentiate all or the most valuable nosologic units (diagnoses), which are manifested by this syndrome.
- This algorithm doesn't suppose on nosologic units, but - on syndrome at once and includes the most important symptoms.

- Algorithm corresponds with consequence of the work of physician's thinking - of diagnostic examination and clinical estimation of its results, special and additional methods of examination.
- The main aim of algorithm is reliable diagnosis by means of shortest way.
- During every stage one or little group of related (same) symptoms are considered and having a single meaning answer is given (presence or absence of symptom or degree of its expressiveness). It is necessary to do conclusion - resume - after every operation.
- Sign, which allows to differentiate biggest categories, must be determined at first. The next stages of algorithmic thinking use symptoms according to degree of falling of their significance.

- Every diagnostic algorithm meant for work of practical physician in conditions of ordinary medical establishment.

Differential diagnosis is based on accessible to everyone research methods and on analysis of accessible to everyone signs. In case of necessity of complicated research diagnostic notes are changed for tactic (to do this process or another one). Mistakes at using of diagnostic algorithm depend on wrong revealed or wrong perceived syndrome.

- During course of disease some signs can disappear and new signs can appear. Therefore it is important to interpret symptoms and syndromes in dynamics of disease with consideration of its initial signs and those ones, which are revealed during this examination. It allows to determine stage of disease and presence of complications.

Peculiarities of problem-solving in medicine:

- Object of resolution is the patient;
- Ethic-legal aspect of resolution is obligation;
- Deficiency and ambiguity of information;
- Instability, "changeability" of condition of object - of patient.
- Absence of elimination of risk-factors during moment of problem-solving;
- Uninvertebility of resolutions, planned to realization;
- Biological and social consequences of realization of resolutions, both nearest and distant.

Factors of dependence of problem-solving by physician:

Social:

- "Pressing" of leader, subordinate persons, friends;
- Level of cultural stratification;
- Religion influences etc.

Biological:

- Type of person;
- Sex, age;
- Condition of health, genetic peculiarities.

Role of neurotism of physician

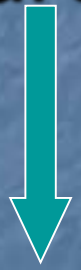
Typical signs are:

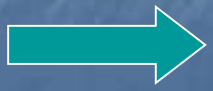
- Pursuit of fame;
- Necessity of thoroughness;
- Neurotic pride;
- Falsification of reality;
- Tyranny “it is necessary”;
- Dependence;
- Humility;
- Submission;
- Perverted relation to people;

The ways of problem-solving

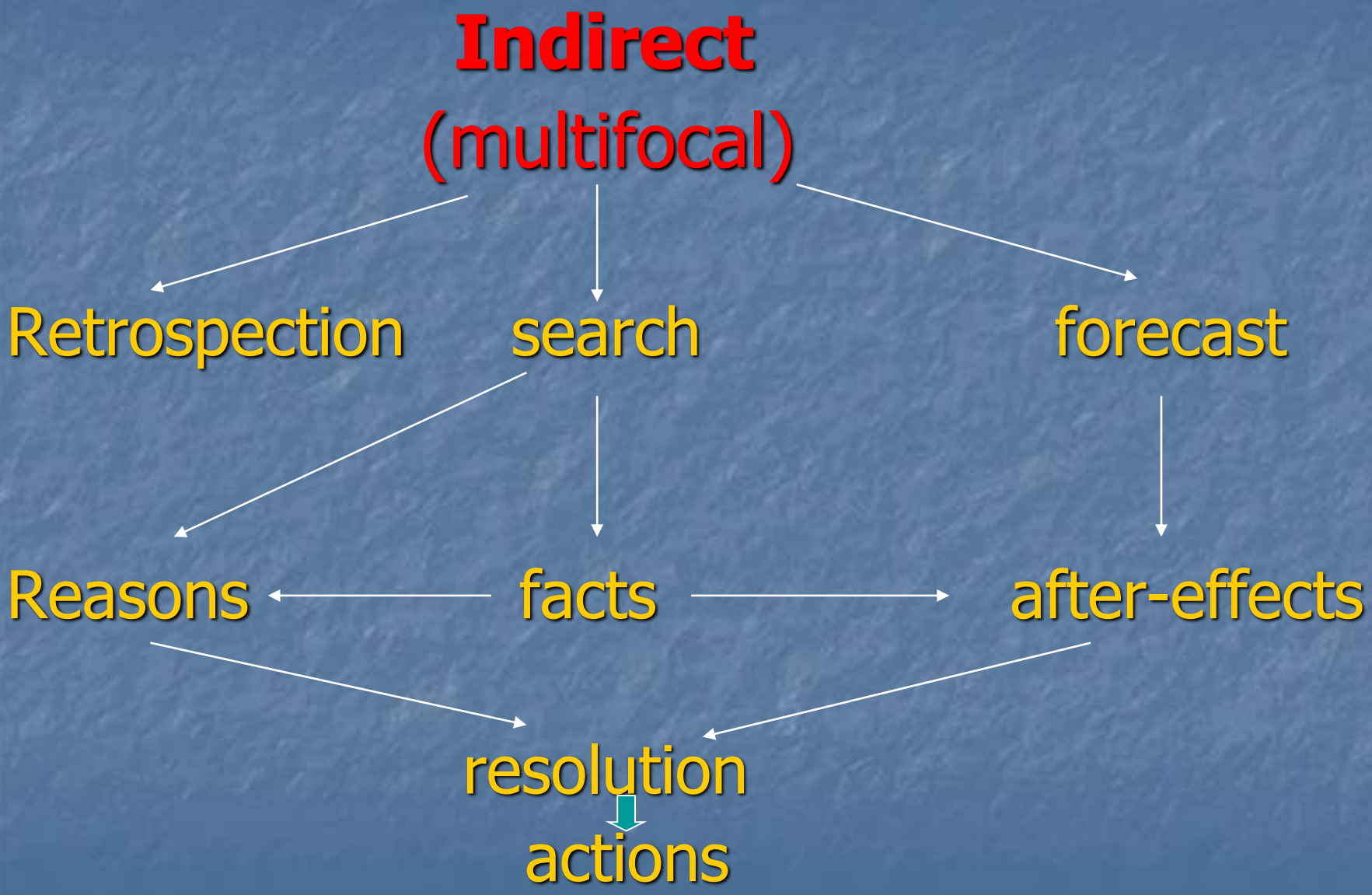
Direct (simplified)

Search



facts  problem-solving  actions

The ways of problem-solving



Negative factors, complicating problem - solving:

- "Terror" of environment (collective, consultation, assistants);
- Conformism;
- Fashion, engagement, expressive specialization;
- Deficiency of information;
- Insufficiency of experience, knowledge or vice versa their surplus and absence of systematization;
- Type of physician's personality;
- "Severe" patient;
- Deficiency of the time;
- External factors, making difficult problem-solving (noise, insufficiency of the light, cold, force majeure circumstances).

Clinical examination of the patient. Anamnestic part of the case history

- **Questioning (inquiry).** It was proposed by founder of Moscow therapeutic school M.Ya.Mudrov. It was improved and introduced in diagnostics by G.A. Zakharin.
- Examination of the patient begins from putting questions to him/her. Answer on them is named anamnestic (Gk *anamnesis* - remembrance). Complex of information, obtained during patient's questioning, is named anamnesis, and process of getting of this information is taking of anamnesis.

The rules of questioning

- During first contact physician gets to know with patient making more precise passport data. Obtained data aren't important only for choice of peculiarities of contact. They have diagnostic value also.
- It is important that patient told about all problems, depressing him/her at first. Character of complaints' exposition allows to decide how much critically it is necessary to perceive obtained from patient information.
- Information about patient with impairments of consciousness can be obtained from his/her relatives or persons, which accompanied patient, direct doctor and from medical documentation also.

- Description of the patient can be chaotic, inconsistent and therefore physician must direct it, putting additional questions. In these cases physician must take into account the following:

1. Physician must not be extraordinary pressing so don't to force of obsequious patients to confirm that problems, which physician search in them.

2. It is impossible to allow to the patient to lead of physician to direction of certain, possible, wrong diagnosis (particularly, if the patient was examined in other medical establishments).

Sequence of questioning:

- General information about the patient;
- Patient's complaints and working out in detail of them;
- Questioning according to systems of organs;
- History of present illness (present history);
- Life history.

General information about the patient

- Determining of *patient's age* (youthful age can testify about endocrine pathology or congenital heart disease. If patient looks older, it can be result of severe diseases in past or premature aging - progerias). Age of the patient can help to reveal the reason of disease also.
- Same complaint can be sign of different diseases.
- The course of disease can depend on patient's age also.

- It is important to ascertain *profession and place of employment* as there are disease, related to influence of occupational hazards.
- *Place of residence* can have value in origin of endemic diseases, related to geobiochemical peculiarities of place.
- *Sex* can certain diagnostic value (pulmonary cancer, ulcers, podagra are revealed in men more often, and pyelonephritis, cholelithiasis, iron-deficiency anemia - in women).

Patient's complaints (mollestia aegroti) and their detalization

- ***Complaints*** are unpleasant feelings, which appear in disturbance of function or structure of functional systems; they are signs of diseases and have subjective character.
- Description of the patient about unpleasant feelings must be worked out in detail.
- Complaints are subdivided into the *main* and *additional*. The main ones are those unpleasant feelings, which trouble patients mainly and force him/her to appeal for medical aid.

Attitude of the patient to disease

- Negative (ignoring of fact of disease, influence of risk-factors);
- Neglectful (underestimation of severity of disease);
- Plunging in disease;
- Hypochondriac (groundless fear for health and life);
- Utilitarian (getting of certain profit (financial or moral) from disease).

- Aspect of egogeny (receipt of information about disease from various origins and as a result - his/her disinformation);
- Malingering - exaggeration of diseases' signs by the patient;
- Simulating - description of the patient due to any motives about that signs, which are absent in him/her;
- Dissimulating - ignoring of evident signs of disease by the patient or concealing of them.

Questioning according to systems of organs

- During questioning of the patient symptoms, which are important for diagnostics, can not be remembered because of any reason. That is why questions about dysfunction of all systems must be asked.
- It is necessary to remember that due to interconnection of all organs and systems disturbance of one from them leads to disturbances in all other ones.
- Manifestations of present disease can be result of chronic disease, to which patient is accustomed (pains in right hypochondrium can be result of both disease of digestive organs, and circulatory insufficiency).
- There are diseases, which are manifested by signs of lesion of different systems.

Present history

- It is necessary to ask about beginning of disease in detail:

1. How long does the patient consider himself as sick person?
2. Does the beginning of disease sudden or gradual?
3. What were the first signs of disease?
4. What does the patient relate its appearance with?
5. Did he/she appeal for medical aid?
6. What is dynamics of disease? Data about exacerbations, appearance of other signs, previous examinations, treatment in past.
7. Motives of visit, how long he/she was treated and character of treatment.

Life history

1. Conditions of childhood, mature age.
2. Living conditions.
3. Patient's labor activities.
4. Dietary habits.
5. Harmful habits.
6. Diseases, operations, traumas in past.
7. Did the patient have jaundice, malaria, tuberculosis, venereal diseases, oncological diseases, etc. in past?
8. Risk-factors of AID-infection
9. Family anamnesis.
10. Diseases of relatives by blood.
11. Allergological anamnesis.

- Impression from talk with the patient leaves in physician background, on which results of other methods of examination give final notion about disease.

The lecture was delivered by

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Thank you for attention