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TEXTBOOK "SURGERY": PRINCIPLES OF MAKING OF THE PRELIMINARY DIAGNOSIS

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Abstract

The textbook "Surgery" for English-speaking students includes information on methods and principles of preliminary diagnosis. The following methods of diagnostics are viewed: a) Analogy method, which is possible in case of typical (classical) manifestation of a disease (in uncomplicated external abdominal hernias and acute purulent surgical infection of soft tissues); b) Inductive method, which is based on the initial hypothetical generalization with the findings validation; c) Substantiated diagnosis, based on the doctor's mentally synthetically activity, who sequentially analyses all the present symptoms and verifies their compliance with the disease d) Method of differential diagnosis (most reliable), which excludes all signs of other similar diseases. To establish a diagnosis, a thorough examination of a patient is required. The more signs of the disease manifestation are revealed, the more probable the accuracy of the diagnosis is. The methodology of the preliminary diagnosis is discussed. After the thorough questioning and physical examination of the patient the doctor has to make sampling of pathological symptoms in their both subjective and objective manifestations. Preliminary diagnosis is substantiated by referring to the complaints of the patient, using their successive presentation, starting with the most evident ones. Each complaint must include all various subjective shades of the pain manifestation in this patient (for example, localization of pain, its displacement, intensity, character, irradiation, and ways of the pain relief). After the sequential referring to each complaint, in order to justify the preliminary diagnosis, the anamnesis is used that shows the time when the disease arose, the nature of its course and the patient's subjective evaluation of possible factors that led to occurrence of the disease. At prolonged or recurrent course, methods of previously performed examinations and their results, types and extent of the treatment and its efficiency are ascertained. If the factors that have etiopathogenetical impact on the disease occurrence are present in the anamnesis, they must be pointed out (the

presence of stressful situations, type of nutrition, working conditions, etc.). Preliminary diagnosis is substantiated by objectively revealed pathological changes, starting with general changes and then using the local ones. Using objective manifestations, it is necessary to comply with the methodological scheme at first to carry out physical examination, then palpation, percussion, auscultation and, finally, to analyze the results of rectal and vaginal examinations.

Keywords: Textbook "Surgery", preliminary diagnosis, principles

Introduction

For the quality of treatment of patients, doctors need to learn and master the stages of diagnosis.

The methods of diagnostics are as follows:

- *Analogy method*, which is possible in case of typical (classical) manifestation of a disease (in uncomplicated external abdominal hernias and acute purulent surgical infection of soft tissues).
- *Inductive method*, which is based on the initial hypothetical generalization with the findings validation.
- *Substantiated diagnosis*, based on the doctor's mentally synthetically activity, who sequentially analyses all the present symptoms and verifies their compliance with the disease
- *Method of differential diagnosis (most reliable)*, which excludes all signs of other similar diseases.

The most important thing in education in the training of the future doctor is the **method of preliminary diagnosis** of any disease, including surgical.

The previously used textbooks on surgery have described mainly the clinical manifestations of diseases and their treatment techniques, without clarifying the principles and preliminary diagnosis capabilities for students.

After general medical practice tasks medical education of doctors determines the basic requirements of the scope of knowledge and practical skills for graduating student of institute of higher education of IV level of accreditation: goal-directed methodic algorithm of questioning of the patient (getting anamnesis), physical examination, substantiation of provisional diagnosis, determinate algorithm of additional methods of investigations with analysis of received results, differential diagnosis, forming clinical diagnosis, substantiation of treatment program and it's realization.

In the future the young doctor will be able to work not only as a family doctor, but also the expert of other directions, for example - a surgeon. For preparation to practical work the textbook "Surgery" for students can be applied, including the information on methods and principles of forming the preliminary diagnosis (Bereznytsky, Zakharash, & Mishalov, 2016).

Methods

For education of medical students, the textbook "Surgery" including information about methodology of the forming preliminary diagnosis can be used.

After the thorough questioning and physical examination of the patient, the doctor has to make sampling of pathological symptoms in both their subjective and objective manifestations. The preliminary diagnosis is substantiated by referring to the complaints of the patient, using their successive presentation, starting with the most evident ones. Each complaint must include all various subjective shades of the pain manifestation in this patient (for example, localization of pain, its displacement, intensity, character, irradiation, and the ways of the pain relief).

After the sequential referring to each complaint, in order to justify the preliminary diagnosis, the anamnesis (history) of the disease and patient's lifestyle are analyzed. That shows the time when the disease arose, the nature of its course and the patient's subjective evaluation of possible factors that led to the occurrence of the disease.

The method of physical examination for forming the preliminary diagnosis includes special methods: visual inspection of patient's body, palpation of his/her body (abdomen and other parts), percussion (chest and abdomen), and auscultation (chest and abdomen) for getting information about the pathological manifestations of any surgical diseases.

Correct results of the questioning method and method of physical examination may be applied for effective forming of preliminary diagnosis.

All stages of the method of forming the preliminary diagnosis are very detailed in the textbook "Surgery" and allow medical students to effectively study the discipline Surgery under primary diagnosis.

Procedures

To implement the system of planning, monitoring and evaluation of the education quality for a real degree of assimilation of students with specific components of the program during the academic year of surgery training and discipline for module "Abdominal surgery" is in general based on the cumulative number of ranking points for the European Credit Transfer System (ECTS) (The European Higher Education Area, 1999; Magna Charta Universitatum, 1988).

This will improve the quality of learning the discipline among the four-six years students enrolled this year, and develop common indicators for professionally-oriented exam after the 6th year of study to get a general level of theoretical and practical knowledge and skills of physicians interns of surgery.

The Department of Surgery № 1 of the Dnipro Medical Academy conducted structured, multiple planning of the study process and the use of different forms of the staging control. Taking into account the Standard program of the discipline, curriculum, and working program for the department were created, which involve the specific actions of

teachers, students and interns of surgery to achieve theoretical and practical knowledge, necessary resources and sequence of technological operations with the use of credit-modular system.

Thus, the substantial module "Surgical Gastroenterology and Proctology" includes "Syndrome of chronic pain in the upper region of abdominal cavity", "Syndrome of mechanical jaundice", "Syndrome of an acute pain in perianal area", "Syndrome of rectal prolapses" and "Diarrheic-inflammatory syndrome", combining similar diseases or their complications in the form of so-called educational elements, where, for example, a practice training for "Syndrome acute pain in perianal region" contains "Acute hemorrhoids", "Acute anal fissures", "Acute paraproctitis" and "Inflammation of the epithelial coccygeal passage".

This approach is appropriate to expediently use the time of practical training, examine patients according to pathological syndrome, mastering the skills in classes with medical simulators, and perform preliminary and differential diagnosis with the definition of a rational treatment program.

To support the learning process, principles of credit-modular system were developed, using multimedia lectures, the textbook "Surgery", methodological guide of development for students and interns, methodological guide of development for teachers, hand book and individual plans for students and interns, journal of the teacher.

Results

The textbook "Surgery" for medical students includes all educational information about diagnostic methods of surgical diseases, and preliminary diagnosis, in particularly.

Education of students of the 4-6 years of a medical university using the proposed textbook increased their interest and motivation. With this tutorial, students prepared not only for the clinical manifestations of disease and surgical techniques, but also for their medicamental therapy.

This tutorial helps students learn different methods and the stages of diagnostics of surgical diseases, starting with preliminary diagnosis.

The experience of using the textbook "Surgery" and credit-modular system in teaching and measuring knowledge of surgery since 2016 suggests that this approach is effective.

The received results underscore the increased objectivity in the control of knowledge on the part of teachers' interest and increasing students and medical interns' interest to master the subject, that allowed to prepare a general practitioner in surgery and surgeons, and integrate in the future in practical public health in Ukraine and worldwide.

Conclusion

Given that the level of qualification of the doctor is in the first place in various gradational systems of educational societies the necessity to improve the quality of medical education in institutes of higher education is understood, in which the credit module system is implemented to the educational process.

The doctors' of the general medical practice tasks determinate the basic requirements of the scope of knowledge and practical skills for graduating student of institute of higher education of IV level of accreditation: goal-directed methodic algorithm of questioning of the patient (getting complains, anamnesis), physical examination (visual inspection, palpation, percussion, auscultation), substantiation of provisional diagnosis on the basis of the revealed syndromes, determinate algorithm of additional methods of investigations with analysis of received results, differential diagnosis between similar diseases, forming clinical diagnosis taking into account the International Classification of Diseases in Edition #10, substantiation of treatment program (place of treatment: home, ambulatory or clinic; time beginning of treatment: urgent or plan; methods of treatment: medicaments or surgical intervention; rehabilitation and prevention of recurrent after treatment) and its implementation.

The new textbook "Surgery" may be used for effective preparation of students and young doctors for forming preliminary diagnosis, as the first stage of diagnosis of diseases.

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