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## EDUCATION OF MEDICAL STUDENTS ON SYNDROMIC PRINCIPLE OF DIAGNOSTICS

**Volodymyr Sulyma**

SO "Dnipro Medical Academy Ministry Health of Ukraine"

Email: Volodyasulyma@mail.ru

**Yakiv Bereznytskyi**

SO "Dnipro Medical Academy Ministry Health of Ukraine"

Email: surgery@dma.dp.ua

**Robert Molchanov**

SO "Dnipro Medical Academy Ministry Health of Ukraine"

Email: surgery@dma.dp.ua

### Abstract

Syndromic diagnostic principle includes the recognition of diseases that is based on the mental processes only with that range of pathological conditions and diseases, which manifest themselves with a single leading syndrome, regardless of affiliation to different nosological units. At the beginning of the examination of a patient, a doctor must actively identify symptoms of the disease. Herewith the researcher does not know which disease is characterized by this or that symptom as a set of the same symptoms may occur in various diseases. At the same time, only complete identification of all clinical symptoms and features of their manifestation gives an opportunity to form isolated syndromes, which make it possible to recognize and substantiate provisional diagnosis. The main syndromes of surgical diseases include pain syndrome of various location, fever, jaundice, motor evacuators disorders of the gastrointestinal tract and other disturbances. In other words, syndrome is a complex of symptoms, outwardly unified for various diseases of the various organs and systems regardless of the etiology and pathogenesis of the disease as well as the affected organ or system. The most important advantage of the syndromic principle of diagnostics is that the syndromes are so obviously different from each other that they cannot be confused. Already this first, rather simple stage of medical thought should become a basis of boundary economical diagnostic thinking. All the subsequent mental activity is going on inside the given syndrome, at that, its features, manifestations, connections with other symptoms and syndromes are analyzed. In consideration of the importance of rapid and qualitative analysis of the revealed symptoms and syndromes of the disease, a certain sequence of elementary mental operations that can be represented as a specific diagnostic algorithm is required. Moreover, it is the stage of education that is very important for mastering the principles of unified and standardized approach to the detection and analysis of the findings. At the same time, it is the rapid and accurate recognition of the disease that makes it possible to start early and targeted treatment. This is the improvement of the effectiveness and quality of medical

diagnostics that forces to modify some of the principles and thinking processes at learning that can provide higher probability of diagnostics and bases of high quality treatment.

**Keywords:** *education, diagnostic, syndromic principles*

## Introduction

Nosological principle of training that exists in most clinical departments, unfortunately, does not meet the practical work of a doctor, so we came to forming the curriculum by the syndrome principle: a practical training combines several pathological conditions, with features, such as the module "Abdominal surgery", it consists of two modules of content (substantial modules): "Urgent abdominal surgery" and "Surgical Gastroenterology and Proctology".

The syndromic diagnostic principle includes the recognition of diseases that is based on the mental processes only with that range of pathological conditions and diseases that manifest themselves with a single leading syndrome, regardless of affiliation to different nosological units.

At the beginning of the examination of a patient, a doctor must actively identify symptoms of the disease. Herewith, the researcher does not know which disease is characterized by this or that symptom, as a set of the same symptoms may occur in various diseases. At the same time, only the complete identification of all clinical symptoms and features of their manifestation gives an opportunity to form isolated syndromes, which makes it possible to recognize and substantiate provisional diagnosis.

The main syndromes of surgical diseases include pain syndrome of various location, fever, jaundice, motor evacuators disorders of the gastrointestinal tract and other disturbances. In other words, a syndrome is a complex of symptoms, outwardly unified for various diseases of the various organs and systems regardless of the etiology and pathogenesis of the disease as well as the affected organ or system.

## Methods

To implement the system of planning, monitoring and evaluation of the education quality for a real degree of assimilation of international 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).

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

## Procedures

The Department of Surgery № 1 (in 2015 – 95 years from being founded) of the State Organization “Dnipro Medical Academy Ministry Health of Ukraine” (in 2016 – 100 years from being founded) conducted a 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, a curriculum, and a working program for the department were developed by teachers, for students and of interns of surgery to gain theoretical and practical knowledge, necessary resources and a sequence of technological operations with the use of credit-modular system.

In 2011 in the Department of Surgery № 1 of the State Organization “Dnipro Medical Academy Ministry Health of Ukraine” was founded Ukraine's first training center “Endoscopic technologies in medicine”, based on which foreign interns learn to use mini invasive operating technologies in surgery.

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 for expediently using the time of practical training, examining patients according to pathological syndrome, mastering the skills in classes with medical simulators, and performing differential diagnosis with the definition of a rational treatment program.

To support the learning process developed by the principles of credit-modular system using multimedia lectures, the textbook “Surgery” (Bereznytsky, Zakharash, & Mishalov, 2016), a methodological guide of development for teachers, a hand book and individual plans for students and interns, and the teacher’s journal were developed.

For the practical training the division’s computer class (10 computers) was used for computer testing of students and interns, while two classes of medical mannequins and simulators (products firm “3B Scientific”) were used for acquiring and mastering practical skills, supervision of patients in the surgical department, supervised and theoretical survey in training rooms.

For the interns, besides the basic work in the surgical department with patients, it is necessary to master the operational equipment in operation and manipulation rooms, as well as to master mini invasive surgery technology in the learning center “Endoscopic technologies in medicine”.

## Results

The most important advantage of the syndromic principle of diagnostics is that the syndromes are so obviously different from each other that they cannot be confused. Already this first, rather simple stage of medical thought, should become the basis of boundary economical diagnostic thinking. All the subsequent mental activity is going on inside the given syndrome, at which its features, manifestations, connections with other symptoms and syndromes are analyzed.

For the establishment of diagnosis, a careful inspection of a patient is needed. The earlier the signs of display of disease are discovered, the greater the probability of correct diagnostics.

After the careful questioning and physical inspection of a patient, it is necessary to conduct a counsel, to select the pathological symptoms both in subjective and in objective their displays. The previous diagnosis is a grounded reference to the complaints of the patient, using them successively, beginning from the most expressed. In every complaint it is necessary to specify this entire patient has different subjective tints of pain display (for example: localization of pain, its change, intensity, character, irradiation, and what facilitated it).

After the successive reference to every complaint, for a ground anamnesis of disease are used: the time of the origin of the disease, the character of motion, the subjective estimation, and the possible factors which resulted in the origin of the disease.

At the protracted or recurrent motion of the exploration, the applied methods of earlier conducted researches and their results, kinds and volume of treatment, and its efficiency are taken into consideration.

At presence of in anamnesis of life of factors which have an etio-pathogenetic influence on the origin of disease, it is necessary to specify them (presence of stress situations, character of feed, condition of labor, etc.).

Then the previous diagnosis is grounded objective, pathological changes are found out, beginning from general, and then local. Using objective displays, it is necessary to adhere to the methodical chart - at first to bring a review over, then conduct palpation, percussion, and auscultation, to analyze the results of rectal and vaginal researches.

The previous diagnosis plays an important role for forming of troubleshooting routine and the algorithm of its implementation, that in connection with a clinical picture possibility of establishment of correct clinical diagnosis is determined (Kirby, Taylo &, Civetta, 2005).

## Conclusion

In consideration of the importance of a rapid and qualitative analysis of the revealed symptoms and syndromes of the disease, a certain sequence of elementary mental operations that can be represented as a specific diagnostic algorithm

is required. They have to be taught to medical students. The stage of education is very important for mastering the principles of unified and standardized approach to the detection and analysis of the findings.

Only the complex estimation of subjective and objective displays of the disease, complemented information of the special methods of research, provides high-quality diagnostics of both planned and exigent, surgical diseases. Thus, the information of additional methods enables to objectively assess the state of the patient, the dynamics of motion of the disease, the influence of medical measures, to find out the nascent complications, and to define the prognosis of disease.

At the same time, it is the rapid and accurate recognition of the disease that makes it possible to start early and targeted treatment. This is the improvement of the effectiveness and quality of medical diagnostics that forces to modify some of the principles and thinking processes at learning that can provide a higher probability of diagnostics and the bases of high quality treatment (Parsons & Winner-Kronish., 2006).

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