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Volume 1, Pages 1-421

Proceedings of International Conference on Humanities, Social and Education Sciences

© 2021 Published by the ISTES Organization

ISBN: 978-1-952092-18-3

Editors: Stephen Jackowicz & Ismail Sahin

Articles: 1-29

Conference: International Conference on Humanities, Social and Education Sciences (iHSES)

Dates: April 22-25, 2021

Location: New York, USA

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Modern Pre-operation Education of Surgeons: Principles Forming of Clinical Diagnosis

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Abstract: At the examination of a patient, a doctor evaluates clinical picture of the disease that manifests itself by a great number of various general and local symptoms caused by an etiological factor and pathogenesis changes of the different organs and systems of the organism. A purpose of the surgical patient examination is making of early, correct and precise individual diagnosis, and, based on it, effective and timely rendering of medical care via either pharmacologic nonsurgical methods or surgical intervention. Making a diagnosis is the most important task of the diagnostic and treatment process; solution of this task includes creative analysis of the disease clinical course, formulation of the provisional diagnosis and following determination of the additional examination methods scopes and diagnostic algorithm. From a formal aspect, diagnosis is based on the nosological principle and has to contain the name of a certain disease or injury according to the accepted nomenclature and classification of diseases; it is of importance to medical statistical goals and scientific research. Assessment of the findings of additional methods of examination in the aggregate with clinical signs allows carrying out of differentiation of similar diseases and gives an opportunity to make a clinical (final) diagnosis and define treatment approach. Concomitant diseases do not have etiopathogenetic relation to the underlying disease but able to influence substantially on the character of clinical picture, choice of the extent of other methods of examination and treatment.

Keywords: Education, Pre-operation, Principles, Clinical Diagnosis

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 oriental features, such as the module “Abdominal surgery”, consists of two modules of content (substantial modules): “Urgent abdominal surgery” and “Surgical Gastroenterology and Proctology”. 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.

Method

To implement the system of planning, monitoring and evaluation of the education quality for a real degree of assimilation of foreign students with specific components of the program during the academic year of surgery training and discipline for module “Abdominal surgery” 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 of enrolled this year, and develop common indicators for professionally-oriented exam after 6 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 (in 2017 – 95 years founded) of the State Organization “Dnipro Medical Academy Ministry Health of Ukraine” (in 2016 – 100 years founded) was conduct 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, working program for the department was create the specific actions by teachers, of students and of interns of surgery to achieve theoretical and practical knowledge, necessary resources and sequence of technological operations with the use of credit-modular system (Sulyma, et al., 2017).

In 2011 on 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”, bases on which of 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 prolepses” 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, perform 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" (Bereznytskyy Ya., et all., 2016), methodological guide of development for teachers, hand book and individual plans for students and interns, journal of the teacher.

For the practical training used division’s computer class (10 computers) - for computer testing of students and interns, two classes of medical mannequins and simulators (products firm “3B Scientific”) - 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’s necessary to mastery of the operational equipment in operation and manipulation rooms, as well as mastering of mini invasive surgery technology in the learning center “Endoscopic technologies in medicine”.

Results and Discussion

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. For establishment of diagnosis the careful inspection of patient is needed. Then it is an anymore discovered sign of display of disease, the greater probability of rightness of diagnostics.

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

After successive reference to every complaint for a ground anamnesis of disease is used: time of origin of disease, character of motion, subjective estimation, and the patients of possible factors which resulted in the origin of disease. At the protracted or recurrent motion of explored the applied methods early the conducted researches and their results, kinds and volume of treatment, his efficiency.

At presence of in anamnesis of life of factors which have an etiopathogenetic influence on the origin of disease, it is necessary to specify them (presence of stress situations, character of feed, condition of labor, and ect.). Then a previous diagnosis is grounded objective found out pathological changes, 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 palpation, percussion, auscultation, to analyze the results of rectal and vaginal researches. A previous diagnosis plays an important role for forming of troubleshooting routine and algorithm of its implementation, that in connection with a clinical picture determines possibility of establishment of correct clinical diagnosis (Kirby RR., et al., 2005).

Conclusion

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. Only complex estimation of subjective and objective displays of disease, complemented information of the special methods of research, provides high-quality diagnostics of the both planned and exigent, surgical diseases. Thus, information of additional methods enables objective weight of the state sick, dynamics of motion of disease, influence of medical measures, find out nascent complications, define the prognosis of disease (Kasimoglu, 2021; Lindsay, 2020, 2021; Ryan, 2020; Temel & Tukul, 2021). 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 (Parsons PE, Winner-Kronish JP, 2006).

Recommendations

This procedure may be recommendation for preparation medical students and young surgeons.

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