**MYKOLA SKLIFOSOVSKY AND HIS INNOVATIONS**

**TO MEDICAL PRACTICE**

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Публікацію присвячено життю та інноваціям, запропонованим відомим хірургом Миколою Скліфосовським. Авторки статті концентрують увагу читачів на досягненнях цього видатного лікаря в хірургії та польовій хірургії.

Микола Скліфосовський запровадив у хірургічну практику кілька важливих речей: принципи асептики й антисептики, як основні профілактичні методи запобігання післяопераційних ускладнень; наполягав на передачі управління польовими госпіталями лікарям і вилученні з них чиновників; разом із своїм учителем Миколою Пироговим – запропонував використовувати жінок-медсестер для догляду за пораненими; ними було сформовано ефективну систему транспортування поранених: від надання первинної допомоги у польових умовах (при вогнепальних пораненнях) – до перев’язувальних пунктів і далі до стаціонарного госпіталю; саме вони запропонували систему сортування поранених, засновану на оцінці тяжкості поранення, від короткотермінових контузій і поранень м’яких тканин тіла до ампутацій.

*Ключові слова: летальність, післяопераційний період, “замок Скліфосовського”, асептика, антисептика, польова хірургія.*

The development of the second half of the 19th century is connected with names of many outstanding figures. Mykola Vasyliovych Sklifosovsky was one of them.

He was born in a poor noble family, in Tyraspil’ district of Kherson region in 1836. Later, his family moved to Odesa, where he entered gymnasium. After the successful graduation he became a student of medical faculty of Moscow University. There he took a great interest in surgery. This specialization in his opinion was the most creative and high-minded one. Surgeons were the physicians, who more often survived lives of patients. Mykola Sklifosovsky participated in operation at the first time when he was a 20 year-old student. This experience was not very successful, he swooned. Professor Toporkov was not sure that sensitive Mykola became a surgeon. M. Sklofosovsky tried to prove the opposite. He participated in operations and made bandages for patients in post-operative period. Later, he started to assist during the operations, and finally, made operations himself so successful that after the graduation he was appointed on the position of a Head of the Surgery Department in Odesa municipal hospital. In 1863, he defended dissertation and got the degree of Doctor in Medicine. In 1866 he went to Europe for the probation period for two years. There he understood that Russian surgeons had to study many things. Backed to motherland, he started his educational carrier, using European experience.

There was one thing, which made M. Sklifosovsky upset, namely, the high per cent of lethality of patients in post-operative period (out of 100 operated patients a quarter died). He was sure that insanitary in operating rooms and in wards was the main cause of that. Professor M. Sklifosovsky together with his teacher M. Pyrohov provided introduction of asepsis and antisepsis to the surgical practice like the main methods of prevention of post-operative complications. M. Sklifosovsky based on the works of British surgeon Joseph Lister considered that many diseases were caused by microbes. Mykola Vasyliovych was the first one, who openly declared and insisted on the necessity of sterilization and cleansing of medical tools by antiseptic agents, bandages, gauze, physicians’ uniform and the place of operation. His report at the first Pyrohov’s Congress in 1885 (“On Success of Surgery under the Influence of Putrifactive Method”) was devoted to those points. The speaker underlined that introduction of disinfecting methods made easier the recovering of patients.

It was just one direction of his activity. There were some other ones. He had a great experience and it demanded his own scientific research. Once he had to operate a patient, who had a heart problem and M. Sklifosovsky felt that general ether narcosis could kill that one. Professor decided to risk and used locally anaesthesizing cocaine. Operation was successful and did not give complications. In some time, this method started to use some European surgeons in their practice.

Mykola Sklifosovsky tried to increase his authority in medicine, because he understood that just in such a way he would get the chance to influence on the situation in the whole Russian medicine. In 1877 he left the university department and went to the fronts of Russian-Turkish war to get an additional experience in field surgery. He could not sit at home, because he knew that it was the chance to survive war victims, giving them an appropriate medical aid.

He insisted on the medical management by field hospitals, instead of state body one, existed in empire. Unfortunately, his idea of rational use of specialists during the war was not realized at that time. It was recognized later, when in sanitary departments and administrations started to work professional consultants.

He was a pupil and follower of Mykola Pyrohov. M. Sklifosovsky actively developed and introduced new principles of field surgery. They offered to use female nurses for caring of the injured military-men. This idea was supported by the graduates of the High Medical Courses, who voluntarily went to the front. There were not enough doctors and nurses there. Participation in 4 wars gave M. Sklifosovsky the great and valuable experience. The main task was creation of necessary conditions for giving of operative and effective medical aid for injured military men.

First of all, the successive system of patients’ transportation was formed: from the primary aid on the battle-field (in cases of firearm wounds) or the further transportation of victim to a dressing station or a base hospital. Immobile and plaster bandages were used during the transportation. The main reason for this was decreasing of extremities amputations.

Secondly, Professor M. Sklifosovsky offered a system of sorting of injured warriors, based on the level of complexity of damage, started from short-term contusions and injuries of soft tissues of the body and finishing by the cases of amputation.

Thirdly, we have mentioned that Mykola Vasyliovych was one of those doctors, who provided the principles of asepsis and antisepsis to the surgical practice. The same ones he introduced to the field surgery.

In addition there was one innovation, related to a medical stuff. He initiated a classification of physicians according to the kind of their activity, such as a surgeon, a doctor, was putting the bandages, and a doctor, who was changing the bandages.

In 1879, M. Sklifosovsky moved to Moscow, where he headed the department of surgical clinic, and initiated the building of a new clinical complex in Divoche Pole (the Girl’s Field). He dreamt to make it the best hospital in Russian empire. At the same time he was training in the new kinds of operations for taking the experience, and offered new tools and methodic for surgery, such as a “Sklifosovsky lock” (it was a fixation by metal stitches the broken parts of a femoral bone), which is still used in a surgical practice. In new clinic Mykola Sklifosovsky realized all his ideas of sterile operation rooms and preparing patients for the operation by a compulsory, thorough cleaning. It decreased a death rate in a new clinic at once, after introduction of such approaches. An all the medical specialists, finally understood that in medical surgical practice a new era had started. Era of sterile operation rooms and aseptic method had come.

The authority of Mykola Sklifosovsky was such a big by the late 1870s that even Mykola Pyrohov, his former teacher, asked for a consultation in his disease. M. Sklifosovsky examined his teacher and understood that it was the cancer of the palate, but teacher afraid of getting the truth. M. Sklifosovsky decided to tell that the growth was non-malignant, but advised to remove it as early as it possible. Despite of that M. Pyrohov died in the half of a year.

In some years M. Sklifosovsky lost his son. It was awful hit. His son was a member of revolutionary terrorist organization, received the order to kill Poltava Governor, but preferred to suicide than to kill a father’s friend. M. Sklifosovsky felt guilty that because of his devoted attitude to the work, he did not have enough time for communication with own son.

Just in three years he found the forces to back to his work in St. Petersburg and made a lot for the transformation of his institute into the post-graduate institution for improvement of doctors.

He also organized in Russia the first Röntgen cabinet. Published Medical scientific journals on the own fee.

In 1897 M. Sklifosovsky organized 12th International Congress of Surgeons for the presentation to the world the successful achievements of Russian surgery. Delegates of this Congress had seen the new equipment, and conditions in hospitals, met the doctors, who named their-self followers of M. Sklifosovsky.

He died in 1904 after some apoplectic strokes at the age of 68.

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