
ACADEMICIAN L.T. MALAYA - AN OUTSTANDING SCIENTIST OF MODERN TIMES

Dedicated to the 95th Anniversary

Abstract. *Present review is dedicated to the memory of the outstanding scientist, gifted manager, founder of therapeutic and cardiology schools as well as understanding and sincere person, who is well-known not only in Ukraine, but also far beyond the borders – Lyubov Trofimovna Malaya. The whole professional life of L. T. Malaya is connected with Kharkiv National Medical University. A heightened sense of the new was always inherent in Lyubov Trofimovna. On the initiative and under the guidance of L. T. Malaya, a whole range of new high-tech methods of diagnosis and treatment of cardiac disease was developed and implemented in practice, as well as new highly efficient and economical hospital-substituting technologies. Lyubov Trofimovna’s natural talent combined with passionate love for her profession. She was all focused and striving to help the patient, it was the meaning of her life. The life of Lyubov Trofimovna is a vivid example of selfless service to science, extraordinary versatility of interests and depth of knowledge. .” Undoubtedly, L. T. Malaya rightfully belongs to the galaxy of famous Ukrainian therapists. I would like to believe that the doctors who have been lucky enough to work and learn from L. T. Malaya will pass to new generations a particle of their professionalism and humanity, and this thread will never stop running.*

On January 13, 2014 the scientific medical community and physicians of different specialties of Ukraine celebrated a glorious anniversary of the Hero of Socialist Labor, Hero of Ukraine, Academician of National Academy of Sciences, National Academy of Medical Sciences (NAMS) of Ukraine and Russian Academy of Medical Sciences, Honored Scientist and Technician of Ukraine, Laureate of State Prize of USSR and State Prize of Ukraine in the fields of science and technology, laureate of awards at the AMS of Ukraine, Doctor of Medical Sciences, Professor Lyubov Trofimovna Malaya. We, disciples and followers of Lyubov Trofimovna Malaya, who worked hand in hand with her for many years, are especially acutely aware today of how much her personal contribution to the development of the national cardiology, therapy and medicine is in general [1,2].

It is a hard task to highlight L. T. Malaya's creative activity because of its versatility. One thing is clear: Lyubov Trofimovna is a talented organizer; on her initiative, the Research Institute was established in Kharkiv in 1986, where she became the first director and worked until her last days because she did not imagine her life without beloved work. Now the Institute of Therapy of National Academy of Medical Sciences of Ukraine bears her name. Speaking about the contribution of L. T. Malaya in the development of medical science, President of NAMS, Academician A. M. Serdyuk said that it was thanks to her that the Institute was established, and, in a short time, became a powerful scientific and medical complex [3].

During the Great Patriotic War, more than 200,000 doctors and about 500,000 health care workers were employed in the military medical services. The proportion of women among all health care workers was 46%. Among front-line physicians, women accounted for 41%, among military surgeons — 45%, among nurses — 100% [4]. L. T. Malaya went all the way from a doctor in front-line hospitals of South, North Caucasian, Transcaucasian fronts up to the Deputy Head of the Medical Department of the Kharkiv military district. After the war, a famous military leader, Marshal of the Soviet Union I. Kh. Bagramyan, wrote: "What the Soviet military medicine did during the past war can be justly defined as a feat. For us, the veterans of the Great Patriotic War, the image of a military medic will remain the embodiment of high humanism, courage and selflessness." That is probably why Lyubov Trofimovna said: "My dream is that succeeding generations would live peacefully, amicably and happily. I hope this will come true." [5] Years of harsh war left Lyubov Trofimovna with the rank of medical service major, Medal for Battle Merit, Medal for Taking Part in the Heroic Defense of the Caucasus," Medal "For the Victory over Germany in the Great Patriotic War 1941–1945" as well as huge medical and organizational experience, professional skills, a sense of the enormous responsibility for the assigned work and subordinates, and firing shrapnel wound in the left leg [6].

In the glorious galaxy of luminaries of the Ukrainian medicine, the name of Academician L. T. Malaya shines with special, inimitable brilliance. Her curious

mind, phenomenal diligence and sense of the new formed the basis for early expressed interest in scientific work, in which she took a great interest while still at residency under the supervision of Prof. S. Y. Steinberg — a prominent physician and former student of N. D. Strazhesko. Watch hours at the bedside of patients, work in the laboratory, night reading of medical books, hard work on a dissertation became new pages in the biography of the young scientist. It should be emphasized that Lyubov Malaya carried the memory about her teacher through all her life. “He was strict, talented and extremely friendly. He modeled out of me not only a physician, but also a personality”, remembered Academician Malaya with great respect [7].

Her dissertation “Tuberculin diagnosis in clinic of internal diseases”, brilliantly defended in 1950, demonstrated the diagnostic value of tuberculin reactions in the clinic of internal diseases and raised a number of issues which contributed to the development of a whole branch of new research. In 1954 L. T. Malaya defended her doctor’s dissertation “On changes of cardiovascular system in tuberculosis”, which laid the foundation for the further study of the whole complex of clinical and fundamental problems of internal medicine. Her scientific work was described by an outstanding world-class scientist Academician A. L. Myasnikov as follows: “One can definitely tell that neither in domestic nor in foreign literature there is a similar work done so carefully and widely” [8].

The whole professional life of L. T. Malaya is connected with Kharkiv National Medical University. Lyubov Trofimovna passed all stages of the hierarchy from clinical intern (1946) to assistant (1954), assistant professor (1954), full professor (1955) and head of the department. From a talented but young scientist, she became a mentor, pedagogue, teacher. A brilliant lecturer and promoter of knowledge in the field of internal medicine, Lyubov Trofimovna was the founder of the modern Ukrainian therapeutic school. It is her textbooks that taught many generations of physicians. Lyubov Trofimovna was personally acquainted with many cardiologists and therapists in all corners of Ukraine, where she visited with lectures, presentations and performances, taking part in national and interregional conferences and congresses with brilliant clinical analyses. For many years she was the head of

the specialized Scientific Council for defense of dissertations for a scientific degree of Candidate and Doctor of Medical Sciences D 64.600.04, which now bears her name.

A great place in L. T. Malaya's research work took theoretical and practical issues in areas such as cardiology, atherosclerosis, coronary heart disease, arterial hypertension, and their clinical manifestations and complications such as myocardial infarction, heart failure, heart rhythm disorders, rehabilitation treatment, and study of the therapeutic effectiveness of new medicines.

A heightened sense of the new was always inherent in Lyubov Trofimovna. On the initiative and under the guidance of L. T. Malaya, a whole range of new high-tech methods of diagnosis and treatment of cardiac disease was developed and implemented in practice, as well as new highly efficient and economical hospital-substituting technologies. Thus, the introduction of the concept of phased system of rehabilitation of patients with myocardial infarction in Ukraine, of course, is owned by L. T. Malaya. Under her guidance, a specialized cardiology intensive care unit at the 27th Kharkiv Municipal Clinical Hospital was established for treatment of patients with myocardial infarction. Implementation of the system of phased treatment of patients with myocardial infarction allows every year to return hundreds of thousands of such patients to productive professional work. For the first time in Ukraine, L. T. Malaya initiated fundamental research in the field of integrated prevention of major noncommunicable diseases, which are an integral part of the corresponding WHO program "Health for All".

On the initiative and under the guidance of Lyubov Trofimovna, in-depth studying of microcirculation of myocardial infarction and its complications, including using radioactive isotopes, liquid crystal thermal indication and thermal imaging technology, allowed to provide an original scheme of drug correction of microcirculation. Of particular note is the study of hemostasis in myocardial infarct. The Clinic's Infarct Department and cardiological problem lab carefully studied the pathogenesis and treatment of cardiogenic shock in patients with myocardial

infarction, its complications, myocardial healing processes and, especially, hemostasis in myocardial infarct.

Working out the problem of neurohumoral regulation of homeostasis in cardiovascular diseases progressed considerably in the works of L. T. Malaya and her colleagues. For the first time in Ukraine, L. T. Malaya's team thoroughly studied the metabolism of biologically active polypeptides as components of the kallikrein-kinin system of blood and prostaglandins, effectively proving the most important role of local hormones in the formation and progression of cardiovascular pathology. Developing the concept of the leading role of atherosclerosis in evolution of coronary heart disease, L. T. Malaya studied the features of protein-lipid metabolism abnormalities in atherosclerosis and, by means of immunoelectrophoresis, found in the blood of patients the protein-lipid complex acting as antigen. The study of pathogenetic mechanisms of atherosclerosis and its complications, the therapeutic value of humoral and cellular factors of atherogenesis in coronary heart disease was significantly developed in the works of L. T. Malaya and her colleagues. On the basis of examination of the role of biologically active substances in the occurrence and course of cardiac pathology, complex pharmacological correction of hypertension depending on the activity of renin was implemented in clinical practice, antibradykinin preparations for ischemic heart disease and hypolipidemic drugs for atherosclerosis were applied.

When examining the problems of heart failure, it was shown by Lyubov Trofimovna and her school that the clinical manifestations of this syndrome are accompanied not only by disordered intracardiac, peripheral hemodynamic and metabolic disorders, but also by disorders of neurohumoral regulation as well as adaptive and compensatory mechanisms. It was demonstrated that the leading factor of the pathogenesis of chronic heart failure is disordered neurohumoral mechanisms of vasoregulation in the form of insufficient activity of vasodilating systems (endothelial factors, atrial natriuretic peptide, kallikrein-kinin system) against the background of hyperactivity of vasoconstrictive (endothelin-1, vasopressin, renin-angiotensin, sympatico-adrenal) systems of regulation. It was demonstrated that the

implementation of the therapeutic potential of various groups of medications used in patients with heart failure, depends on the fundamentally different ratios of activity indicators of neurohumoral systems of vascular tone regulation, which was the theoretical basis for the ability to forecast the effectiveness of treatment in this cohort of patients. The effectiveness of neurohumoral modulators, including ACE inhibitors, AT1-angiotensin receptor antagonists, blockers of mineralocorticoid receptors and -adrenergic blockers was studied in patients with chronic heart failure. Lyubov Trofimovna's works confirmed the concept of individualized treatment for patients with chronic heart failure, which is particularly important at the present time.

The life of Lyubov Trofimovna is a vivid example of selfless service to science, extraordinary versatility of interests and depth of knowledge. Although L. T. Malaya was, according to E. M. Tareev, "a first rank cardiologist," she did not focus on cardiology only [9]. Almost all the articles on the biography of Academician of NAS and NAMS of Ukraine and Russian Academy of Medical Sciences L. T. Malaya list the achievements of her and her students in various sections of the internal diseases. Actually, there is no area of multifaceted medical science, where Lyubov Trofimovna and her school would not make a huge contribution. The wide range of L. T. Malaya's scientific and practical interests also included such clinical aspects of internal medicine as the study of the causes of chronicity of internal diseases, the development of methods for early detection, optimal drug therapy and prevention of the most common diseases of the circulatory system, respiratory organs, diseases of the gastrointestinal tract and kidneys with the implementation of research results into health care practice. Lyubov Trofimovna said: "What gives me the strength to live and work is the love of the chosen specialty, awareness that my life and work are for the benefit of mankind, boundless thirst for knowledge, high responsibility, and exceptionally kind attitude of those whom I truly love, who helps me in the difficult days of my life" [10].

Lyubov Trofimovna's natural talent combined with passionate love for her profession. She was all focused and striving to help the patient, it was the meaning of her life. Lyubov Trofimovna possessed clinical thinking of a broad therapist, in

connection with which she was often invited to participate in consultations of specialist doctors and analyses of the most sophisticated diagnostic patients. Staff rounds with subsequent analyses of clinical features of disease were real school for practicing physicians. Each diagnosing made by L. T. Malaya was always the result of a thoughtful examination of the condition of the patient; the treatment prescribed by her was always based on the individual and personal characteristics of the patient, a profound knowledge of the pathogenesis of disease and clinical pharmacology. With a phenomenal memory, even many years after the first meeting with patient, she remembered the details of his/her medical history and taught the younger generation of doctors how to conduct a diagnostic search. L. T. Malaya loved to repeat: “The main thing is to be a good doctor. If at least one mother does not lose her son or one father or husband returns to his family after illness, our work is not in vain” [3]. Undoubtedly, L. T. Malaya rightfully belongs to the galaxy of famous Ukrainian therapists.

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