

MEDICAL BACKGROUND OF COSMONAUT-RESEARCHER AT'KOV

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[Article by Yu. Faybishenko: "The Road into Orbit"]

[Text] On that historic day in April 1961 when the world learned about the flight of Yu. Gagarin, Oleg At'kov was studying in the fifth grade. Like many of his contemporaries, from that time on he started to dream about being a cosmonaut.

But in 10th grade he decided to devote himself to medicine. And this decision remained unaltered, even though he failed to gain admission to an institute at his first attempt. He worked for a year as a medical orderly in the medical-sanitation department of an enterprise in Kherson city.

In 1967 he became a student at the Crimea Medical Institute. Then he moved to the Kiev Medical Institute for family reasons, and he finally graduated from the Moscow First Medical Institute.

He started to be attracted by scientific work while still at the VUZ. He conducted research actively in the student scientific club led by a professor at the USSR Academy of Medical Sciences Institute of Pharmacology, N.V. Kaverina. He dreamed of an assignment to this institute. Fate decided otherwise, but he was grateful to Natalya Veniaminovna for the attention that she had given him.

After graduating from the VUZ he was sent to the USSR Academy of Medical Sciences All-Union Cardiological Center Institute of Cardiology, to the clinical-functional department, led by professor N.M. Mukharlyamov. The 10 years that he worked in this scientific collective became for Oleg At'kov years in which he established himself as a research cardiologist. He went to the institute when his colleagues were developing Soviet echocardiography and introducing it into clinical practice.

"Oleg showed a great interest in this work," N.M. Mukharlyamov told us. "His personal curiosity, persistence and tenacity, and his purposefulness and passion for research attracted attention. He was the first in the Soviet Union to use two-dimensional echocardiography to do real-time studies of heart anatomy and function. In ischemic heart disease the method makes it possible to study the function of the damaged and undamaged parts of the heart and its compensatory abilities."

This research formed the foundation of O.Yu. At'kov's candidate dissertation, which he defended in 1978. In the same year he was awarded a Komsomol prize for the development and introduction of ultrasound methods for the diagnosis of the main heart diseases.

A sociable, kind and sympathetic man by nature, Oleg is always ready to help his comrades, helping to master a new method or explaining a difficult problem to a junior colleague. He is sensitive and attentive to his patients.

"I recall," professor N.M. Mukharlyamov continues, "that we were organizing the first all-union seminar on echocardiography. At'kov delivered lectures and led practical studies. And all this without interrupting his main work. And that, incidentally, is what he still does. The seminars now take place each year. They have, in fact, become an all-union school for echocardiography."

The USSR Academy of Medical Sciences All-Union Cardiological Center has been associated with space medicine for many years. USSR Academy of Medical Sciences academician A.L. Myasnikov stood at the sources of these scientific links.

N.M. Mukharlyamov has been engaged in problems of hypokinesia in cosmonauts since 1961. Specialists at the All-Union Cardiological Center conduct these studies jointly with their colleagues from the USSR Ministry of Health Institute of Medical-Biological Problems. At one stage in the research, work was done to clarify the reserve possibilities of the healthy individual, and echocardiography was the method used. O.Yu. At'kov did this. And so now he was working not in his childhood dreams but in the actual reality, in space, or more accurately, with the problems of space medicine.

The research continued, actively supported by the leadership at the center. With the aid of echocardiography Oleg Yur'yevich studied the response of the cardiovascular system in the lower body negative pressure created in space, using the special "Chibis" suit.

And when the question of a flight by a physician arose, At'kov was named among the initial candidates. The state medical commission declared him "Fit for flight."

On the eve of the launch we talked with O.Yu. At'kov.

"My mood is good and I feel fine," he said. "I shall be working in my specialty. I shall try to fulfill successfully everything in the planned research program. I wish the readers of MEDITSINSKAYA GAZETA good health and creative success."

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