

MOSCOW MEDICINE

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For scientific as well as political reasons, no one can afford to ignore the recent dramatic developments in Soviet medical research.

Ten days in Moscow does not make one an authority on Russia, but I would like to report some of my personal impressions and opinions formed during a recent visit to the Soviet Union. I was fortunate in receiving a cordial invitation from Professor V. A. Negovsky to visit his country. Our first two days seemed like an adventure to my wife and me, as we did not request a guide interpreter. After the second day it became apparent that our independent arrangement, owing to the tremendous language barrier, would be impractical. Furthermore, this service is already paid for before one enters the country. As our visit wore on we became more bewildered. I understand that our feeling was not unique, and that it becomes more pronounced if one stays two months to a year or more.

We met two types of people; those youngsters of the Russian Government's Tourist Agency, whose psychological approach is parallel to and follows that of its government, were one type. We were familiar with this from reading our newspapers and following the proceedings of the United Nations, but a heavy dose of chauvinism becomes rather frustrating. The second type were the doctors and scientists, who were cooperative, outgoing and exceedingly cordial. They politely stayed away from discussion of political subjects.

These scientists impressed us as intelligent, serious and dedicated scholars, with a great desire to share their knowledge with us; even suggesting a world medical conference on resuscitation. The groundwork already is being laid as it meets with approval in our national capital.

Their medical schools are graduating about 15,000 physicians a year. Almost 70% of these are women. During Czarist times about 5% of the profession consisted of women. There are no idle women in Russia. They seem to be needed in all the professions. It is said that there are 14 million more women than men in the Soviet Union.

In medical education, as in engineering, great stress is being placed upon the basic sciences, for it is deeply felt that progress can originate only from a firm groundwork in these fundamentals. With this philosophy as a background, and extreme academic freedom in certain designated fields, the rate of progress in medicine and science has been phenomenal during the past 10 years. The Russians openly indicate that within the next seven to 10 years they definitely expect to surpass us. (They naturally are depending upon us to remain complacent and be more interested in our individual standard of living than in research.)

The curtain began to unfold after a reception given for us by the Minister of Health for the Federated States of Russia. In his spacious office we were invited to sit at a large refectory table covered with delicacies and decanters. A toast at 10 o'clock in the morning was a real innovation for me. Dr. Kurashov asked me to name the things I wanted to see. As a result I visited everything that I requested. Also present at this reception, that quickly consumed three hours, were my wife, Professors Blohkin and Negovsky of the Institutes of Cancer Research and Resuscitation respectively, and two interpreters.

That afternoon and part of another day were spent at the Institute of Resuscitation. Here there are 50 doctors constantly working on research problems and temporarily attached doctors who later go out to Soviet hospitals to teach resuscitation techniques. Well organized teams are found in every hospital. An abstract of *A Manual on Cardiac Resuscitation** has been sent to every single hospital in the Soviet Union, by order of the Minister of Health.

On short notice, about 125 doctors were rounded up and I was asked to address them in the auditorium of the institute. This I did with

*R. M. HOSLER: *Manual on Cardiac Resuscitation*, 2nd ed. published by C. C. Thomas.

a splendid interpreter who had been born and raised in Shanghai where he had also received his medical education. After World War II he was repatriated back to Russia. I survived a question and answer period much better than I had anticipated. Hanging above the podium directly over my head was a large picture of Karl Marx.

Interspersed between medical talks and visits to various hospitals, institutes and clinics were some ordinary sight-seeing trips which were of great interest. Moscow now has seven million people. Its main streets are much wider than Park Avenue and they are kept scrupulously clean by a crew of women who sweep them with primitive twig brooms 24 hours a day. We were told that this capital would soon be the largest and most beautiful city in the world. At present there is a tremendous, all-out building boom.

An automobile trip to visit the Fortress Monastery at Zagorsk was absorbing. It is about 50 or 60 miles northeast of Moscow. Much of Russian history was written here as the Mongols and Tartars were turned back at this point. Much to our surprise we found a functioning theological seminary there.

A full day was spent at the Skilifassovsky Hospital where, standing beside the operating tables, we witnessed several types of major surgery. At first I was stunned to see some of the patients walk to the operating room in their own socks without premedication and climb onto the table unassisted and then receive a spinal anesthetic. One operation consisted of a gastrectomy for carcinoma of the antrum of the stomach. An excellent operation was carried out by Dr. Androsov with their time saving instruments. From the incision to sewing up the abdominal fascia consumed exactly 30 minutes.

This hospital is famous for its cadaver blood bank. In the small world department, Elliot Cutler, my mentor, visited this institution after V-E day in 1945. They recalled him well and remembered him as very helpful. At this one institution they have already processed over 30 tons of blood. We witnessed the withdrawal of eight pints of blood, under sterile conditions, from a man who had recently dropped dead on the street. There is no need to citrate the blood. It can be stored for six weeks. Can an eye bank be considered in the same category?

Dr. Pavel Androsov and his assistant then demonstrated on human tissue many of their time saving instruments. All of these new developments have a direct application to military and disaster medicine. I have their book (1957) the title of which is, *New Surgical Apparatus and Instruments with Their Uses*. With these instruments, the technical problem of organ transplantation is limitless and is well on its way to being solved. Among other things, it would not surprise me to have them announce at anytime that they had successfully exchanged hearts in two dogs in record time.*

The most remarkable instrument that was demonstrated to me was for rapid suturing and anastomosing blood vessels. It applies a circular mechanical suture by means of small tantalum staplers. The intima is turned out and the clamps do not protrude into the lumen, neither do they crush nor devitalize the tissue. A few of its applications are treatment of traumatic vascular lesions, aneurysms, transplantation of organs and reconstructive surgery.

A double hinged, large jawed instrument is used to resect the stomach and quickly close the

*This has since been announced in European newspapers. Time: 30 minutes.

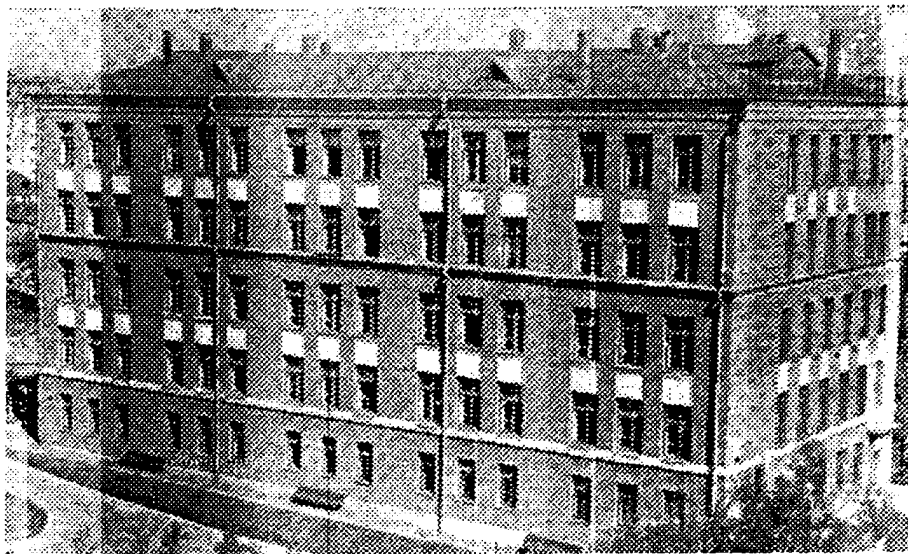


Figure 1
Institute for the Development of New Surgical Instruments, Moscow. Here, 200 people are employed solely at research on surgical instruments.

open end with a double layer of buried tantalum clamps. Another instrument for securing the hilus of the lung was demonstrated on human tissue. It was stated that a pneumonectomy could be done in 10 minutes with this instrument.

There is an Institute for the Development of New Surgical Instruments. It is a six story building (Figure 1) in which about 200 people are employed solely for this one purpose.

About 3:30 in the afternoon we visited Dr. Tarasov's office. He is the Medical Director of the Sklifassovsky Hospital. In his suite was found the inevitable table piled high with delicacies and this time two full quarts of Scotch. Dr. Androsov, the Chief Surgeon, joined us. We learned that about 50% of the doctors in this institution were women. Each doctor works five hours a day and twice a month he is on duty for a 24 hour period. This particular hospital takes care of all emergencies in Moscow. During 1957, there were 1,999 ectopic pregnancies operated upon here.

Professor Negovsky gave a dinner party for 14 at his town residence. He lives alone in an apartment. There were four women physicians present and one interpreter other than Dr. Smolnikoff who spoke English fluently. I will not go into detail other than to remark that this, too, was a most fabulous experience.

We spent another day at the Thoracic Institute where Dr. Smolnikoff is the director of anes-

thesia. During the course of one heart operation I had the opportunity of seeing the standby resuscitation team go into action following a hemorrhage. The circulation was successfully maintained. There was excellent coordination and cooperation in their up-to-date operating rooms.

In talking to the Deputy Director of this hospital I found that his salary was 7,000 rubles a month; while his rent was 200 rubles. The maximum income tax is 6%.

Our hotel was the National, situated across the street from the Kremlin. No doubt it is considered very fine, but it represents Victorian elegance. Our suite was monstrous and contained a concert grand piano. My wife played it the first day, but thereafter found that she could not play with her gloves on. There was no heat in the hotel in spite of the fact the temperature reached 32° every morning in mid-September. Our neighbor was Mrs. Eleanor Roosevelt.

At six, of the morning we left, Professor Negovsky showed up at the distant airport to bid us goodby. We were never asked to open our baggage upon entering or departing on their jet Tu 104.

In summary I will say that Russia is a country of extreme contrasts in all fields, as well as in medicine. I cannot recommend it solely as a vacation spot. The world seemed much brighter upon reaching the friendly city of Copenhagen in just two hours.