

Academician prof. dr. Isidor Papo - Life and work of the most famous Yugoslav cardiac surgeon

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(1) HOME OF HEALTH ŽABALJ; (2) HOME OF HEALTH KULA; (3) HOME OF HEALTH ODŽACI; (4) HOME OF HEALTH NOVI SAD; (5) HOME OF HEALTH KANIŽA; (6) HOME OF HEALTH SREMSKA MITROVICA

Summary: Prof. Dr. Isidor Papo is our academician, general and one of the pioneers of cardiac surgery in Yugoslavia. He was the first to perform open heart surgery in 1951. With his tireless work, persistence and curiosity, he saved the lives of many people, enhanced Yugoslav surgery to one of the best in the world, and encouraged his students to continue his path and overcome it.

Key words: Isidor Papo, academician, cardiac surgeon

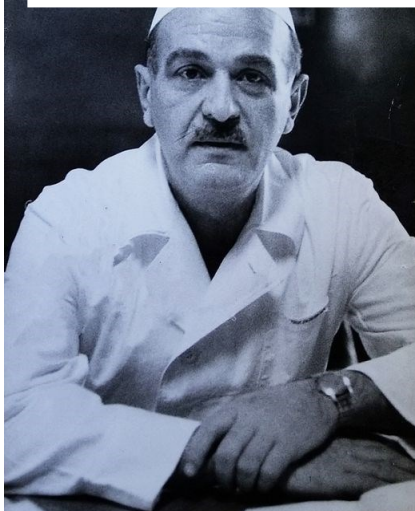
INTRODUCTION

Prof. Dr. Isidor Papo was one of the most respected doctors in the former Yugoslavia. He was born on December 13th 1913 in a small town in Herzegovina, Ljubiško. He was the third child of municipal clerk Jozef Papo, a Sephardic Jew, and his wife Klara, born Levy. [1,2,3] When he was fit for school, his family moved to Mostar, where young Isidor finished high school. According to the testimony of prof. Papo, his childhood in Mostar will remain in his fondest memory, and he will cherish the friendships he made in that city for the rest of his life [5]. In December 1932, he went to study at the University of Zagreb. He passed all his exams in record time and with the best grades- all tens. During his studies, the young Papo was most influenced by prof. Dr. Drago Perović (one of the most famous anatomists of that time) and prof. of surgery, Dr. Julije Budisavljević, who fueled in him the desire to practice surgery. Papo was "obsessed" with the perfect surgical technique, which in periods of imperfect anesthesia was the decisive factor in the patient's survival. After college, he completed his mandatory internship and military service in Sarajevo. In 1939, a strong fascist influence was already felt in the Kingdom of Yugoslavia and it was difficult to get a job. For Jews, "numerus clausus" was implemented when vacant positions were available in public institutions. When a vacant position for a doctor in the Sarajevo hospital was announced, the Minister of Health from that period, Budisavljević, chose young Papo over the candidate that Prince Pavle himself had exhorted. [1,2] Thus begins Papo's career as a surgeon, which lasted 42 years. He was granted a specialization for gynecology, but soon the war started, which interrupted all of that. Papo is mobilized into the surgical team of the Zeta Division. After the signing of the capitulation, there was a general disunity among the soldiers and he was captured by the Italians in Nikšić. He manages to persuade them to let him go and flees to Sarajevo. Thanks to Home-guard colonel Dr. Dinko Cvitanović, he got a temporary job at the Sarajevo Hospital, where he also lived in the attic. At that time, Sarajevo was under the administration of the NDH and the Ustaše demanded that all Jews be identified with a yellow ribbon, which Papo refused. Raids begin in Sarajevo and the Gestapo sends an invitation to the Papo to come forward. It is then when he decides to flee to Mostar, where Dr. Koporoc employs him in the hospital there. Mostar was then under the occupation of the Italians, who did not persecute the Jews. Jews could move freely in Mostar and its surroundings. Dr. Dinko Cvitanović does not forget him and invites him to flee with him via Split to Abyssinia, but Papo still decides to stay in the captured country. Through his friend Salko Fejić, he came into contact with the communists on September 26th 1941 and becomes a doctor-surgeon of the Mostar battalion. Dr. Gojko Nikoliš, who at that time was the head of the medical department of the Supreme Headquarters of the Partisan Army, transferred him to his surgical team. [1,2] Together with Dr. Mešterović, they form a team that will take care of tens of thousands of wounded over the next three years. There were a lot of improvisations at that time: sewing was done with parachute thread, there was a lack of medical equipment, instruments, anesthetics, medical personnel... When they took over a settlement, the most important thing for Papo would be to collect

food and medical equipment so that they could help wounded soldiers and civilians. He operated tirelessly, sometimes continuously for 72 hours. That war surgery regime left its mark on young Papo. Namely, he begins suffering from insomnia, which will follow him throughout his life. In Jajce, where the Supreme Headquarters was, he carried out operations even during the bombing. Papo did not leave the patients on the table even during the fiercest forays of "Stukas" in order to hide. He participated in both the battle on the Neretva and the battle on the Sutjeska, during which he treated wounded and sick civilians from typhus, and carried some to the nearby hospital on his back. Papo was in the column of wounded that was protected by the 3rd proletarian division under the command of Sava Kovačević. During the battle on the Sutjeska, he escaped death and wandered for two weeks, surviving, as he used to say, by "emasculating young boars in villages". During the war, he also experienced a personal tragedy when the Ustaše killed over 50 members of his family, including his brother and sister. [1,2,3,4,5]

In 1944, he was sent to Bari as a member of a delegation with Dr. Nikoliš in charge with intent of cooperation and training with allied English and American doctors. There, he will meet his lifelong companion, a surgical nurse, Anastasija, Asja Salakin. He also gained a lifelong friend, Lord Rodney Smith, who in 1969 proposed him for a member of the Royal College of Surgeons. After returning from Italy, he went to Novi Sad, and then to the Srem Front, where he treated the wounded. After the end of the war, from 1945 to 1948, he stayed at the University Clinics in Moscow and Leningrad, where he acquired knowledge from prominent surgeons A. N. Bakunjev, A. A. Visnyevski, B. V. Petrovski and S. S. Judyn. [1,2] He passed the specialist exam for surgery in 1947. Prof. Dr. Papo gained significant experience in esophagus reconstruction, he later modified his professor's method, which is still called Judyn- Papo's method in the literature. Back then, caustic injuries to the esophagus caused by household cleaners such as baking soda and hydrochloric acid were common. According to Medical Military Accadamy (VMA) data, until 1967, Professor Papo performed 425 reconstructive procedures with a mortality rate below 4%. He received numerous international awards for this technique. [2,5] He returned to Yugoslavia in 1948, where he became the head of the Second Surgical Department of the Main Military Hospital in Belgrade, which later grew into the Surgical Clinic of the VMA. He will spend the next 30 years in that position. In 1950 he was elected assistant professor, in 1953 he became an associate professor, and in 1956 he became a full professor of surgery, head of the department and chief surgeon in the Yugoslav National Army (JNA). In 1950, he spent his training in the USA, at clinics in New Orleans, Baltimore and Houston, where he collaborated with Dr. Cooley, gaining knowledge in heart, lung and blood vessel surgery. In 1951, he became the first surgeon in Yugoslavia to perform heart surgery.

Picture 1. Prof. Dr Isidor Papo



In the 1950s, "closed heart" operations were performed. In most cases, these were procedures on patients with congenital heart defects, such as closure of the residual aortopulmonary canal in children, bridging of congenital narrowing of the aorta, arteriopulmonary bypasses, as well as closed commissurotomies of the pulmonary artery valve in children with congenital cyanotic defects. In addition, closed mitral valve commissurotomies and pericardiectomies are regularly performed in adults with acquired heart diseases. Prof. Papo and his team at VMA from 1960-1961 begin to perform new, exciting operations on the "stopped and open heart" in extracorporeal blood flow and hypothermia, using extracorporeal circulation.

From 1962, catheterization and angiography become a regular part of diagnostics. [2,4]

He manages to surgically treat more and more complex congenital heart defects. Thus, in 1965, he performed the first operation to replace a heart valve with an artificial prosthesis. The professor was proud of that, because those operations were performed a few years after they were performed in the USA, successfully, with few complications and with better equipment than in some European countries. Patients did not have to go abroad for expensive operations. The period from 1960-1981 was the most dynamic for prof. Papo. He did 5 surgeries a day. By his own admission, he had performed 20.000 operations, of which about 10.000 were heart operations, 3.500 congenital heart defects and 3.500 contracted ones. 1.850 people received two or three artificial valves each. [2,4,5]

During the earthquake in Skopje, he organized an "air corridor". The seriously injured were flown to the VMA for surgery. At that time, the professor, together with his team, worked tirelessly for over 20 hours to take care of all the patients. [4,5]

He was Comrade Tito's personal physician, to whom he was bound by war camaraderie. During the three-month trip on the "Seagull", they visited Tunisia, Libya, Morocco and Egypt together. During the trip, prof. Dr. Papo operated on a sailor in the ship's operating room. He was invited to many countries to operate and give lectures, to name just a few: Washington 1973, Barcelona 1973, Los Angeles 1973, Chicago 1974, Buenos Aires 1974, Lima 1974, La Paz 1979, Gothenburg 1983, Houston 1987, etc., as well as great number of lectures in SFRY. [4,5]

At the same time, he progressed in military service. He was promoted to the rank of general-colonel of the medical service in 1975. He was a member of many medical associations such as: Association of Surgeons of Yugoslavia, Austrian Society of Traumatologists, International Society of Hydatologists, American Society of Cardiologists, American Society of Military Physicians (honorary member), Los Angeles Surgical Society, International Society of Surgeons, English Society of Surgeons, British Society of Chest Physicians, Royal College of Surgeons of England (Honorary Member), German Society of Surgeons, Thoracic Surgery Society of Bolivia, Society of Surgeons of Paris (Honorary Member), International Society of Digestive Surgery, Member of the Academy of Surgery of Paris, Honorary Member of the Academy of Medical Sciences of Peru, Honorary Member of the Academy of medical sciences SLD, corresponding member of ANU in Sarajevo, corresponding member of JAZU in Zagreb, regular member of SANU in Belgrade, member of the Federation Council in Belgrade, honorary doctor of the University of Mostar. In the period from 1963 to 1966, he was president of the Surgical Section of the SLD. He was the winner of numerous awards and high recognitions. Some of them are the AVNOJ Award, the Zavnobiha Award, the "22. December JNA" Award, October Award of the City of Belgrade, Seventh of July Award of the Republic of Serbia, Award of the City of Mostar, Vishnevsky Award in Moscow. [2,4,5]

He wrote over 218 professional papers, 13 of which were published in foreign journals. The papers were cited 285 times. His first paper was published in 1939 in "Physician's courier" no. 11 under the title "Haemangioma medullae spinalis", and the last one was "Experience in heart valvulae replacement" printed in 1995 in the SANU bulletin No.14; pp1-7. Bibliographically, professional papers can be divided into: a group of papers related to the issues of war surgery, a group of papers from the domain of surgical treatment of the esophagus, a group of papers in which all aspects of cardiovascular surgery are discussed, as well as the problems that have arisen and their improvement, and a heterogeneous group of works with rare clinical cases of various diseases in human medicine. He became a corresponding member of the Serbian Academy of Sciences and Arts in 1961, and a regular member in 1968. He was one of the main editors of the Military textbook "Wartime Surgery" from 1953. [3,4,5]

He was well informed about international matters and even wrote a book about the knowledges from the Korean War he had gathered. He encouraged his students to engage in experimental surgery. It is known that 4 associates of Dr. Papo wrote dissertations in that field. Their findings were incorporated into the doctrine of treatment of war injuries in our army's medical system. Prof. Papo was diligent in following international medical literature, he noticed the shortcomings of the methods and would modify them in order to have a better survival of the patients. He had a special interest in postoperative complications. Friends and associates state that he was hardworking, disciplined, honest and conscientious. If 500 operations were successful and one was not, he would be deeply sad about that one failed operation. Although he advised patients to take a break from work and rest more, he himself never had that balance. He was at the Clinic every day from 5:30 am to 2 pm, and in the evening he would visit his patients. He also loved philately, collected rare birds, was engaged in beekeeping, but he would often be found in the operating room helping his colleagues in demanding parts of operations even during his breaks. He had a beautiful marriage with his wife Asja, but unfortunately, no children. In his free time, he would go to his native Mostar, and his greatest satisfaction would be when a villager would thank him with "Thank you General, may God give you health". [4,5] He himself underwent major heart and aortic surgery, performed by his friend Dr. Cooley in Houston. Although he wanted to, after the operation he could no longer work. He retired in 1981. He spent his retirement days peacefully, engaged in scientific work. He died on October 14, 1996 at the age of 83. He was buried at the Jewish cemetery in Belgrade.

Picture 2. - Professor Dr. Isidor Papo with his wife Asija in 1946



LITERATURE:

1. Jokanović VT, Novaković M, Đuknić M, i ostali. Isidor Papo: život i delo: [1913-1996]. Beograd: Akademija medicinskih nauka - SLD; 2013. COBISS.SR-ID – 276573959.
2. Papo I. Slobodan Kostić: (1902-1986). Beograd: [b. i.]; 1987. COBISS.SR-ID 60425996.
3. Almuli J, Almuli J. Živi i mrtvi: razgovori sa Jevrejima. Beograd: S. Mašić; 2002. COBISS.SR-ID 102895628.
4. Vučinić M. Životna priča jednog hirurga. Novi Sad: Prometej; 2007. COBISS.SR-ID 223516167.
5. Gregorić DP. I lekari su ljudi. Beograd: D.P. Gregorić; 2014. COBISS.SR-ID 207553804.