

FROM HISTORY OF SURGERY

THE OUTLINE OF THE HISTORY OF SURGERY IN BIAŁYSTOK

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The acts of war and the repressions of the occupant were responsible for the fact that Białystok in more than 70% was in ruins. All the health facilities were destroyed and the modest medical staff decimated. After the liberation from the German occupation on July 27, 1944 the new government immediately began to rebuild and organize hospitals.

In 1948, St. Roch's Hospital located at Piwna street (currently M. Skłodowskiej-Curie str.) was rebuilt from the devastations of war. The above-mentioned hospital after World War II was location to the only surgical department in Białystok. This hospital after many name changes received its present name of Provincial Hospital in 1953. Adam Dowgird (1913 – 1994) (photo 1) was the first director of the hospital, beginning his career in university clinics of Kowno and Vilnius. His unique organizational talent, administrative capacity, creativity, hard work and great commitment to the continuous expansion of the hospital, and the ability to overcome administrative and legal barriers resulted in the fact that the hospital was enlarged from 400 to 1000 beds, and completely modernized during the 28-year period as director of the hospital. Modern hospital pavilions for new departments were built, gaining very high opinions and the recognition of the society.

Professor Konrad Fiedorowicz (1878-1957) (photo 2) as head of the Department of General Surgery, Astrachan University played a significant role in the fate and development of surgery in Białystok. He graduated from medical school in Kiev, obtained his doctorate in Saint Petersburg and worked with the most prominent Russian surgeons, such as profes-

sors Fiedorow, Oppl, and Trojanow. In 1922, he resigned from his post at the Astrachan University, and returned to Poland, in spite of the proposition of becoming head of the chair of surgery. He settled in Białystok, because he wanted to entirely devote himself to surgery in the area of Poland most neglected, near Vilno, where he was born. He was head of the department of surgery and occasionally director of one of the most prominent hospitals in Białystok, which changed its location and name many times. He died on April 25, 1957 as head of the department of surgery, Provincial Hospital in Białystok. His main and undisputable achievement was to raise the level of surgery in Białystok equivalent to university clinics. He gave rise and foundations to the new era of clinical surgery. He introduced

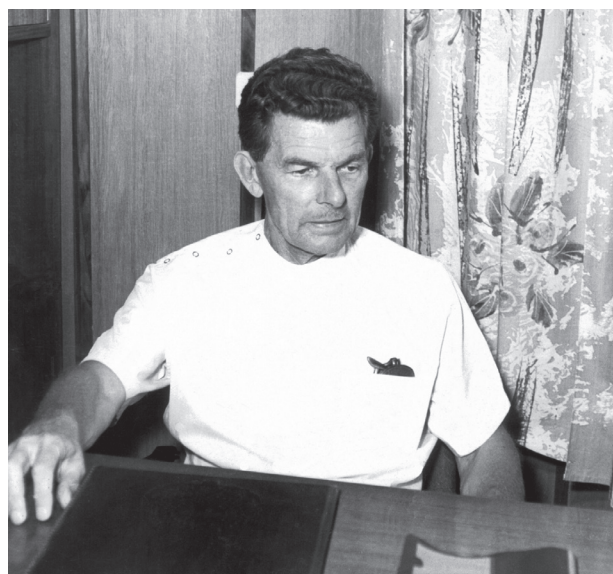


Photo 1. Adam Dowgird (1913-1994)



Photo 2. Konrad Fiedorowicz (1878-1957)

many novel surgical methods, considering the stomach, bowel, gall-bladder, thyroid gland, and most urological operations. He also performed orthopedic spinal operations. He used heterotopic bone grafts.

The Department of Surgery had 180 beds divided into four subunits directed by Konrad Fiedorowicz and Józef Hamerla (orthopedic surgeon), Władysław Giedroń Juraha (future urologist) and Antoni Tołłoczko (future assistant professor at the clinic), who until 1953 was director of the hospital at the same time. These outstanding surgeons had to meet comprehensive demands, since the departments of urology, orthopedics, and pediatric surgery did not exist.

In connection with the establishment of the Medical University of Białystok in 1950, and by the decree of the Ministry of Health, the Chair and Department of Surgery was established in 1952 (180 adult and 35 pediatric beds). Felix Oleński was responsible for its organization. In 1954, the Chair was divided into two Departments: I Department of Surgery (Head: F. Oleński), and II Department of Surgery (Head: Tadeusz Jankowski). These clinics operated on the basis of the Provincial Hospital and moved to the newly built Clinical Hospital (named after J. Sztachelski): the I Department on December 15, 1962, and the II Department on April 16, 1963.

Since then, Adam Dowgird became the head of the 83-bed Surgical Department of the Provincial Hospital. During this period the medical staff was scarce; many surgeons had chosen

to work in University Departments, as well as the Departments of Urology and Pediatric Surgery. There were more than 2000 operations performed each year. Apart from emergency surgery the most common operations were related to the bile ducts, stomach, large bowel, thyroid gland, hernias and varicose veins. In the late fifties and sixties of the past century, A. Dowgird introduced into the Białystok region, yet unique in the country, thoracosurgical operations. During the above-mentioned period patients with cholecystitis were subject to surgical intervention and emergency gastric resections were performed in case of suspected upper gastrointestinal bleeding. This was the period in which such proceedings shocked even some enlightened surgeons and met with lack of acceptance. The binding principle of conservative therapy for both diseases applied.

Adam Dowgird was an overwhelming human being and physician, a great diagnostician and surgeon possessing unique surgical techniques. Wholeheartedly committed to the hospital he became its legend. With the vast medical knowledge and wide interests in other spheres of life he established the character of a humanist physician with the highest standings and extraordinary personality. He left a well-trained (also in foreign centers) staff, but most of all the gratitude of many patients.

Adam Dowgird retired in 1981 and was succeeded by Marian Panek who held this position for two decades. During the above-mentioned period the staff applied the following novel diagnostic innovations, such as endoscopy, ultrasound, and CT, as well as novel methods in management and the surgical technique. In the second half of the eighties, total parental nutrition was introduced, and at the turn of the 80-ties and 90-ties-mechanical sutures. The first laparoscopic cholecystectomy was performed on December 22, 1992. Since that time, one observed a continuous increase in the number of above-mentioned operations (600-700/ year). The organization of the proctology and stoma clinics enabled to take greater pre- and postoperative care, considering above-mentioned patients.

During the period between 2001 and 2006 Krzysztof Kanigowski was head of the department. Thermoablation and thermoresection of metastatic liver lesions, as well as the laparo-

scopic closure of perforated ulcers were introduced. In case of gastric cancer surgery, routine D2 lymphadenectomy was performed. Seven assistants took several weeks of training at the Department of Surgery and Liver Diseases in Warsaw (Professor Marek Krawczyk). The acquired skills are used more frequently in everyday practice.

Since 2006, Mieczysław Wasielica became head of the department. During this period, he extended the scope of laparoscopic operations, including hiatal and abdominal hernias, colon operations, the wide application of diagnostic-therapeutic laparoscopy, and routine appendectomies. Currently, the department has 60 beds.

History of the Chair and Department of Surgery established in 1952, and transformed into the I Department of Surgery in 1954

Since the beginning, Felix Oleński (1905-1964) (photo 3) was the organizer and head of the department. He was assistant professor at the Chair and Department of Surgery, Stefan Batory University in Vilnius during the period between 1931 and 1937, and a student of the famous scientific school established by Kornel Michejda. F. Oleński took over from his master all the best: flawless integrity, high level of specialization in the treatment of gastric and duodenal diseases, wide range of interest (he performed gastroenterological, thoracosurgical, urological, orthopedic and endocrine gland



Photo 3. Felix Oleński (1905-1964)

operations), having trained many excellent surgeons, and had rendered great organizational services, as head of the department of the Municipal Hospital in Vilnius (1937–1939). All his vast knowledge and experience was introduced to the new department in Białystok. He significantly broadened the scope of operations, introducing esophageal, adrenal gland and toxic goitre surgery.

The scientific activity of the Department widely varied and concerned bleeding from the upper gastrointestinal tract, cerebral and cranium injuries (Alfons Obrzut), as well as abdominal trauma and surgical infections (Józef Okulczyk, Stanisław Głowiński).

Feliks Oleński organized methodological postgraduate training of surgeons and was a devoted guardian of local surgical departments, where he often operated severely sick patients. In 1954, he created the Białystok branch of the Polish Society of Surgeons.

On December 15, 1962 the clinic moved to the newly opened Clinical Hospital and occupied the fourth and half of the third floor, retaining the previous organizational structure in the form of three 30-bed departments: general surgery with urology, trauma-orthopedic, and thoracosurgery.

Stanisław Adamski (1915-2011) (photo 4) became the new head of department in 1965 (after the death of Feliks Oleński in 1964), a student of Jerzy Rutkowski and Jan Mol from Łódź. Not only was the organizational structure maintained, but also novel diagnostic and therapeutic methods were introduced, as well as new intensive scientific research.

Stanisław Adamski initiated the surgical treatment of congenital and acquired heart diseases (adult and pediatric) by means of cardiopulmonary bypass surgery, the surgical treatment of pulmonary, mediastinal, esophageal (Marian Furman), and vascular diseases (Stanisław Głowiński), as well as the implantation of pacemakers (Adam Manaczyński, Marek Gacko). There was a postoperative department, which played the role of the Intensive Care Unit for the entire hospital until 1979. In 1965, the first pacemaker implantation was performed (open chest), while in 1973 (Department of Thoracic, Heart and Vascular Surgery) the first cardiac operation by means of cardiopulmonary by-pass.

The range of scientific, experimental, and clinical studies was also wide. The interests of



Photo 4. Stanisław Adamski (1915-2011)

the team of physicians, was directed towards the protection against heart ischemia during cardiopulmonary bypass surgery, and complex studies concerning shock in case of the dec-lamping syndrome.

The organizational and scientific achievements of the Department were as follows: XIII Congress of the Section of Thoracic, Heart, and Vascular Surgery of the Society of Surgeons in Białystok (1969), and the Cardiosurgical Symposium in Augustów (1975) concerning controlled heart rate contraction and coronary perfusion during cardiopulmonary bypass operations. The works presented during the Congress were published in two volumes of memoirs in 1970 and 1976, respectively.

The History of the II Department of Surgery

Since 1955, Tadeusz Jankowski (1903-1967) (photo 5) was the first head of department, a student of Tadeusz Butkiewicz, for many years associated with the Warsaw Center of Surgery. Polish Surgery owes him the introduction and promotion of intraoperative cholangiography.

On April 16, 1963 the clinic moved to the Clinical Hospital, occupying the fifth floor (abdominal surgery department – 32 beds, and department of urology and thoracosurgery – 32

beds), and half of the third floor (department of trauma, orthopedic and maxillary surgery – 32 beds).

The scientific activity of the Department was mostly focused on the pathophysiology of the liver, biliary ducts, pancreas and digestive tract diseases (mostly the stomach and colon). Early diagnostics and surgical management of hepatic diseases (cysts), cholelithiasis and its complications, acute and subacute pancreatitis were the main interests of the Department. Such problems as stomach and colon diseases (ulcerations and carcinoma), thyroid gland, breast and lower leg venous system pathologies were also subject to therapy.

Amongst the modern methods of surgical treatment introduced during those days, one must mention the following: intraoperative bile duct endoscopy, surgical management of biliary duct anomalies, acute necrotizing pancreatitis, and neoplastic lesions, surgical treatment of gastrointestinal tract tumors, arterial chemotherapy of lung, urinary bladder and liver cancer with the use of steered vascular clamps (Józef Zalewski).

Tadeusz Jankowski's scientific achievements are reflected in the valuable local and foreign publications concerning biliary duct, pancreatic, gastrointestinal tract, and experimental surgery. In 1968, Józef Zalewski be-



Photo 5. Tadeusz Jankowski (1903-1967)

came the head of the department after Tadeusz Jankowski's death.

In 1968, due to the changes in the law on higher education and research workers, and thus, in the structure of the Medical Academy, university institutes were established.

In 1970, the two large surgical departments were combined and the Institute of Surgery was established (director – Józef Zalewski), being divided into the Department of Gastroenterological Surgery (Józef Zalewski), Department of General Surgery (Antoni Tołłoczko), Department of Thoracic, Heart and Vascular Surgery (Stanisław Adamski), Department of Anesthesiology (Mieczysław Konopiński), and Division of Experimental Surgery (Stanisław Głowiński). It turned out that the decision concerning the establishment of Institutes was erroneous, impeding the proper functioning of departments. Thus, in 1982 the Institute of Surgery was resolved, but the established departments remained.

Department of Gastroenterological Surgery

The Department was established in 1970 as part of the Institute of Surgery, occupying the fifth floor of the Clinical Hospital (Head of Department – Józef Zalewski). In 1978, the number of beds was diminished to 35, because half of the floor was occupied by the newly created Department of Urology.

The scientific activity of the department mostly concerned the pathology of gastrointestinal tract neoplasms (colon, bile ducts and pancreas). Considering the newly introduced surgical management methods one should mention the following: 1) surgical treatment of severe hemorrhagic-necrotizing pancreatitis by means of the "open abdomen" method; 2) surgical treatment of gastrointestinal tumors using mechanical sutures; 3) introduction of minimally invasive methods by means of laparoscopy.

Since 1996, after Józef Zalewski retired, Zdzisław Piotrowski became head of the department, being a student of Feliks Oleński and Antoni Tołłoczko. He continued the scientific and educational profile of the clinic. In 2003, the name of the clinic was changed to II Department of General and Gastroenterological Surgery. When Zdzisław Piotrowski retired on October 1, 2004 Bogusław Kędra became the head of the department, a student of Tadeusz Popiel.

The scientific and research issues of the Clinic consider the following problems: 1) early detection and multi-factorial treatment of gastric cancer, evaluation of CD 134 (OX-40) and CD 137 (4-1BB) adhesion molecules, expression of glycoprotein CD 44 V4 and V6 variants, and cytokines as neoplastic markers modulating the angiogenesis of patients diagnosed with colon cancer, 2) the pathophysiology and surgical management of acute pancreatitis complications, 3) evaluation of the functional condition of platelets in patients subject to surgical intervention, due to *Echinococcus granulosus*, 4) platelet morphology and their phagocytic and bactericidal activity in patients subject to parenteral nutrition.

The therapeutic profile is mostly oriented towards the surgical treatment of gastric, duodenal, small bowel, colon, anal, hepatic, gallbladder, bile duct, pancreatic, splenic, thyroid, parathyroid, and adrenal gland diseases.

Operations due to cancer are supplemented by extensive lymphadenectomy.

Department of General Surgery

The Department was established in 1970, as part of the Institute of Surgery, occupying the fourth floor of the Clinical Hospital with 64 beds divided into two subunits: general surgery and trauma-orthopedics. Antoni Tołłoczko was appointed as the head of the department, considered as the organizer of the post-war health care system in Białystok, and the first director of the Clinical Hospital. He died in 1975 after a long and serious disease, being succeeded by Zbigniew Puchalski. In 1976, the number of beds was diminished to 40, since some of the premises were passed to the newly established Department of Orthopedics.

The diagnostic and therapeutic activity concerned all basic surgical diseases with most interest in thyroid and endocrine glands, gastric and duodenal ulcer disease, hepatic, biliary duct and pancreatic pathologies. In recent years laparoscopic operations and the use of staplers in the surgical management of gastric and intestinal carcinomas, as well as partial liver resections, due to primary, secondary and pancreatic tumors were introduced.

Major issues of research concerned the pathophysiology and treatment of thyroid and adrenal gland diseases, pancreatic disorders, peptic ulcer disease, gastrointestinal tumors

and endotoxic shock (R. Ładny), as well as the epidemiology and treatment of surgical infections (Józef Okulczyk).

In 1999, the Clinic was renamed as I Department of General Surgery, and in 2003 – I Department of General and Endocrinological Surgery. When Zbigniew Puchalski retired in 2004 Jacek Dadan became the head of the department.

The new head of the department modernized the clinic and its' interior. The range of surgical procedures was expanded, including emergency interventions. All procedures are performed, both, classical and laparoscopic, considering general and endocrinological surgery, as well as vascular, proctological and oncological surgery. Abdominal hernia laparoscopic operations have been improved. Laparoscopic techniques are used in case of esophageal hernia treatment, appendectomy, gastric and duodenal perforation, diagnostics, and the removal of adrenal gland tumors from the retroperitoneal approach. Routine neuroidentification of retrograde laryngeal nerves enables to perform safer thyroid and parathyroid gland operations.

Since 2005, the Clinic is the only surgical center in the Podlaski region treating pathological obesity. Gastric bands are implanted by means of laparoscopy, as well as classical gastric-by-pass procedures.

Department of Thoracic, Heart and Vascular Surgery

The Department was established in 1970 as part of the Institute of Surgery with two subunits and 70 beds located on the third floor. The profile of treatment considered general, thoracic, heart, and vascular surgery, as well as the implantation of pacemakers. The Clinic was location to the only existing Pacemaker Implantation Center in the region existing 40 years.

When Stanisław Adamski retired the Ministry of Health divided and renamed the Clinic in 1987 – Department of Thoracic Surgery, and Department of Vascular and Transplantation Surgery.

Department of Thoracic Surgery

Marian Furman was appointed as the head of the department. It remained the only clinic in the north-east macroregion performing full-

scale thoracosurgical operations of the wall of the chest, lungs (cancer and tuberculosis), mediastinum (retrosternal goiter, thymus gland diseases), esophagus (achalasia, diaphragmatic hernias, tumors), cardiosurgical operations on the beating heart (trauma and tamponade), as well as pacemaker implantations. The scientific activity of the clinic concentrated mainly on the biology (Jacek Nikliński), and surgical aspects of treating lung and esophageal cancer.

When Marian Furman retired in 1999 he was succeeded by Jerzy Laudański, a student of Stanisław Adamski and Marian Furman.

The activity of the Clinic includes invasive diagnostics and surgical treatment of thoracic diseases, such as lung resections in case of primary tumors, resections in case of metastatic lesions and pulmonary emphysema by means of laser techniques, mediastinal tumor operations, esophageal resection-continuity restoration operations, full-scale invasive diagnostics, and management of severe thoracic injuries. Additionally, the Clinic was location for the past 40 years to the implantation and replacement of pacemakers.

The scientific activity of the clinic includes studies on the use of neoplastic markers in the diagnostics and monitoring of lung and esophageal cancer treatment; determination of the molecular basis of precancerous and early lung cancer lesions; combined treatment of non-small cell lung cancer; combined treatment of esophageal cancer; and the use of the laser technique in the resection of the pulmonary parenchyma. The Department participated in three international scientific programs concerning early diagnostics and treatment of lung cancer directed by the Royal Cancer Institute in Liverpool, Cancer Institute in Amsterdam, Goustav-Rouss Institute in Paris, and the randomized III phase trial financed by KBN concerning the improvement of esophageal cancer treatment results. Since the mid-nineties of the past century the Department participated in an international, multi-center, randomized scientific trial concerning adjuvant therapy in the treatment of lung cancer – IALT (published in *NEJM* in 2004 and *JCO* in 2010), and since 2004 in molecular experiments- IALT – Bio (published in *NEJM* in 2006 and *JCO* in 2007). Together with the Department of Clinical Molecular Biology (head: Jacek Nikliński) two programs were implemented and financed by KBN, concerning

molecular-genetic disturbances in case of cancer and precancerous lung lesions.

Significant achievements of the Department include the organization of two international scientific conferences in 2001: 1) in cooperation with the „NATO Scientific Division” and “European Organization for Research and Treatment of Cancer (EORTC)”, under the title: NATO Advanced Research Workshop: Endocrine Disrupters and Carcinogenic Risk Assessment; 2) in cooperation with the “International Conference on Non Small Cell Lung Cancer: Standards and New Trends in Diagnosis and Therapy”.

Department of Vascular and Transplantation Surgery

Stanisław Głowiński was the founder of the newly established Department. He was appointed head of the department.

The history of the Department is delineated by the line of dynamic and systematic scientific development and training of employees. The educational and therapeutic activity was expanded for all types of vascular surgery. Improved vascular procedures and their modifications were introduced. The Department became the leading angiosurgical center in the north-eastern region, and has also taken a prominent place (in the country) in terms of both, the number and outcome of vascular operations, as well as the number of scientific studies with a high Impact Factor (Current Contents registration).

Much effort and energy was consumed considering the many barriers to overcome, mainly psychological, during the introduction of kidney transplantation procedures, east of the Vistula River. A great facilitation and

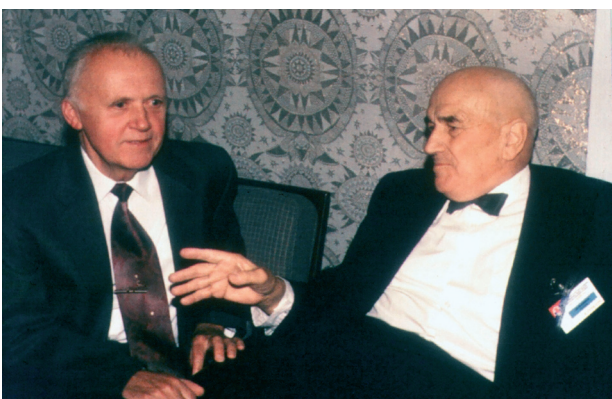


Photo 6. Jan Nielubowicz and Stanisław Głowiński

encouragement in accomplishing this difficult achievement was the fact that the greatest Polish transplantation coryphée – Professor Jan Nielubowicz held a sincere sympathy for Stanisław Głowiński. Hence, the sympathetic attitude and wise and valuable advice concerning the proper development of transplantology in Białystok (photo 6). Following the advice of Professor Nielubowicz considerable help in overcoming and solving all problems was expressed by Jacek Szmidt (student of J. Nielubowicz), who as best as he could conveyed the deep knowledge and own experience in the field of kidney transplantation. He put a lot of effort and heart in the most difficult and decisive „to be or not to be” period of the Transplantation Center development. He not only happily visited but also assisted Głowiński in the first 20 kidney transplantations, advising wisely for many years. Mieczysław Lao – Director of the Institute of Transplantology in Warsaw also sympathized with our center, advising from the internal medicine point of view on how to manage patients during the postoperative period (photo 7).



Photo 7. Jacek Szmidt, Stanisław Głowiński, Mieczysław Lao

On March 1, 1989 Stanisław Głowiński assisted by Jacek Szmidt performed the first kidney transplant in Białystok. The cooperation of the head of the department and clinic physicians with the anesthesiologists and nephrologists was evidence that transplantation results during the 12-year activity of the Transplantation Center in Białystok were amongst the best in the country and did not differ from worldwide results.

The main directions of the scientific activity of the Department were as follows: 1) complex experimental and clinical investigations concerning hemostatic, enzymatic, and morphological properties of all vascular grafts (natural and prosthetic); 2) complex biochemical-morphological evaluation of varicose veins complicated and non-complicated by thrombophlebitis, as well as the prophylaxis and treatment of deep vein thrombosis; 3) aortic aneurysm etiopathogenesis investigations; 4) reactive oxygen metabolites in arterial walls and vascular grafts.

Contact with distinguished scientists from five European centers resulted in the coopera-

tion mainly consisting in 7 educational-scientific trips of young assistants to Holland, Italy, France, Sweden and Hungary.

The organization and management of the Experimental Surgery Laboratory played a significant role in the activity of Stanisław Głowiński. Thirty years of activity comprised 15 dissertations, 30 doctorates, and several hundred publications in journals from the Philadelphia list. The above-mentioned became a bastion of young scientists, not only of surgical disciplines.

In 2001, (after Stanisław Głowiński retired) Marek Gacko became the head of the Department of Vascular and Transplantation Surgery.

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