The history of urology in Poland with the special emphasis of first urological department in Bydgoszcz

Marcin Miklas[1], Roman Sosnowski[2], Zbigniew Wolski[3]

[1] The Urology and Urologic Oncology Clinical Ward, 10th Military Research Hospital and Polyclinic, Independent Public Healthcare Centre, Bydgoszcz, Poland

[2] Department of Urooncology, M. Sklodowska-Curie Memorial Cancer Center and Institute of Oncology, Warsaw, Poland

[3] Department of General, Oncological and Pediatric Urology, Collegium Medicum, Nicolaus Copernicus University, Bydgoszcz, Poland

The beginning of urology in Poland, at that time under annexation and erased from the world map, dates back to late 19th and early 20th centuries, similar to other European countries. The names of the people who contributed to this branch of medicine were well-known in the field of European urology. They are remembered as the harbingers and pioneers of urology in Poland, a country that just after the end of World War I in 1918 regained its independence.

Prof. Alfred Obaliński (1843-1889) was one of the doctors who enabled urology to become an independent discipline, branching off from general surgery. Obaliński was aware of the importance and role of a discipline focused on urinary tract diseases which required frequent interventions. He proved this not only through his activity as a doctor, but also as a writer, and for these reasons Prof. Obaliński should be acknowledged as a harbinger of urology in Poland[1]. As an outstanding specialist, founder of a urology school, and head of the surgery ward of St. Lazarus Hospital in Kraków, Prof. Obaliński had vast experience in the instrumental examination of urinary tracts, and "practiced urology" with much dedication. In 1889 Prof. Obaliński carried out the enucleation of the median lobe to treat prostatic hyperplasia, and this was the first surgery of its type in Kraków and Poland. A suprapubic incision was made during the procedure, considered by Prof. Obaliński the most

[1] Obaliński, A. *„Wykłady z zakresu chorób dróg moczowych męzkich". Wydawnictwo dzieł lekarskich polskich.* Kraków, 1886. (Przedmowa).

appropriate in such surgical cases[2]. In addition, his "*Lectures on urinary tract diseases in men (Wykłady z zakresu chorób dróg moczowych męzkich)"*, published in 1886, was the only handbook on urology in Polish available until the end of World War II.

Several other names should also be listed among those mentioned by Professor Stefan Wesołowski[3]. Leon Kryński, a professor of surgery from Warsaw, worked on the problems of bladder extrophy, and developed experimentally on animal models (dogs) his own technique for the oblique submucosal grafting of ureters into the rectum (1896) to prevent ascending infections (Fig. 1). Kryński was the first to use a conceptual valve mechanism, 15 years before Coffey, and descriptions of it were widely accepted in the international literature, giving the origin to the eponymous surgical technique for grafting ureters to the intestine.

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Fig. 1. Fig. 2. Fig. 3.

Fig. 1. The front page of Leon Kryśnki article

Prof. Maksymilian Rutkowski (Fig. 2) was another renowned person in Polish urology, and he performed a pioneering reconstruction of bladder extrophy with the use of an ileal segment (1898). Unfortunately, it took fifty years for this technique to become widely accepted and popular.

[2] Obaliński A. „O doszczętnem leczeniu zatrzymania moczu u dotkniętych przerostem gruczołu krokowego za pomocą prostatektomii". *Przegl. Lek.* 1889. 28 (37): 441-443.

[3] Stefan Wesołowski (1908-2009), senior of Polish urology. He conferred tens of doctor's degrees and he was fellow and honorary member of many national and international learned societies. He was also teacher and tutor of a few generations of Polish urologists. He kept diaries. In 2009, before Professor's death, I had possibility to look through these diaries in Professor's house in Warsaw at Piękna street thanks to Professor's daughter – Mrs. Anna Wesołowska. Unfortunately, there are only few mentions about urology in Bydgoszcz.

Fig. 2. Maksymilian Rutkowski

A great contribution to surgical treatment of the prostate was made by Prof. Ludwik Rydygier. He developed a technique for retropubic prostatectomy that involved removal of adenoma using perineal access with no injury to the urethra (1900).

Bolesław Motz (1865-1935) was another prominent person, but he was forced to emigrate due to political turmoil. Motz began his work as an assistant at the Guyon Urology Clinic and Albarrán Clinic at the Hôpital Necker, and soon became one of the leading urologists in France, and was granted the title *Professeur libre* by the Faculty of Medicine in Paris. He contributed to developments in Polish urology as an author of numerous publications in Polish and through active participation in Polish scientific conventions. Motz also offered help and support to Polish emigrants[4].

The medical speciality transformed many times, and the same process also concerned the terminology related to it. From the beginning the speciality in question was called 'genito-urinary diseases', and in the 19th century western countries adopted the terms 'urologic diseases' or "urology", derived from the Latin word 'urea' meaning urine. The scope of urology was also changing. As long ago as until the second half of the 19th century it did not include renal calculosis, which was considered a part of internal medicine. The scope of urology included surgical diseases of the urogenital tract, and gonorrhoea (only in men), together with its consequences, while specialists in sexually transmitted diseases treated other diseases of the urogenital tract. Before the First World War, they still used a cystoscope and performed minor urology procedures, such as urethra and bladder irrigation or prostate massage[5].

[4] Wesołowski S. „Zarys rozwoju urologii w Polsce". *Urologia*. T. 1. Red. S. Wesołowski. Wyd. 5. PZWL: Warszawa, 1959. 11-23.
[5] Chojna J.W. *„Zarys dziejów urologii polskiej". Zakład Narodowy Imienia Ossolińskich. Wydawnictwo Polska Akademia Nauk.* Wrocław, Warszawa, Kraków, Gdańsk: 1974.

In the early 20th century many Polish doctors went abroad to the clinics of Albarrán in France, Rovsing in Denmark, James Israel in Germany, and others, to learn about new achievements in urology. After returning to Poland to work on surgical wards, the same specialists dealt with urogenital diseases. This initiated the emergence of urology as a distinct speciality, and created a future foundation for urology wards.

Adam Mincer (1868-1914) was a strong enthusiast and supporter of the development and separation of urology as a discipline(Fig. 3).

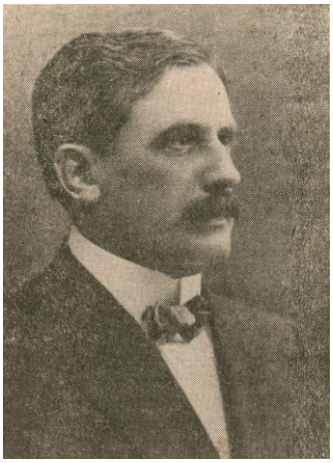

Fig. 3. Adam Mincer

After his postgraduate internship at the famous clinic of Felix Guyon in Paris, at that time a hotbed for educating professionals in urology, where he cooperated with Bolesław Motz, Mincer returned to Poland in 1900 and began striving for the establishment of an independent urology ward. On 17 September 1904 Mincer won the contest for the headship of a new ward at the Holy Spirit Hospital in Warsaw, but the procedure of the recruitment committee was questioned and the contest was repeated in 1905. Despite this, Mincer won the contest again. In 1908 he was one of the first in Poland to perform prostatectomy using Freyer's technique[6]. According to the literature Adam Mincer was the first to use the term "*urology*". At a session of the Warsaw Society of Physicians in 1901 he gave a lecture "*Some notes on the major problems in urology (Kilka uwag o ważniejszych zagadnieniach w urologii)".* Giving the name for the new branch of surgery, Mincer adopted the nomenclature used in Western Europe, reasoning that: *"Aiming towards the specialization of individual medical disciplines is not a fantasy, nor an artefact, but a need stemming from the wide scope of medical knowledge and advances that are made day after day in medicine (…). The science of ailments related to the urinary tract is one of newer separate branches of medicine and it has a*

[6] Chojna J.W. „Adam Mincer (1868-1914)". *Pol. Przegl. Chir.* 1975. 47 (6a): 803-806.

history of just over ten years (…). Recently, the number of doctors learning from Prof. Guyon has increased greatly, in Paris and across France. Prof. Guyon made successful attempts to establish a monthly journal of urology, and a few years later the Urological Association. Finally, at the recent international congress of physicians, a urology section was established… Thus, since the congress was held last year, urology, officially recognized by the entire medical environment, has gained its right to exist and develop further as a separate speciality"[7]. Interestingly, the introduction of new nomenclature was opposed by some experts. For example, Alfred Obaliński argued that the new discipline should be named andrology to identify diseases of the male genital organs, in a similar way that gynaecology denotes diseases of the female genital organs. Today we are certain that this standpoint was unjustified. The transposition of terminology to Polish science, and successful attempts by A. Mincer to establish a separate specialization just a year after it was recognized by the international medical circles confirmed that Polish medicine in the early 20th century did not fall behind the western centres in the prompt introduction of innovative disciplines. In that period there were three independent urology centres established: by Zenon Leńko (Fig. 3) in Lviv (at that time a well-known Polish city and an important academic centre; after WWII it was included within the borders of today's Ukraine), by Jan Kiełkiewicz in Warsaw, and by Tadeusz Pisarski in Kraków.

Dr. Zenon Leńko (1868-1950) was a physician who worked on the surgical ward headed by Prof. Grzegorz Ziembicki in Lviv, where from 1901 he treated patients with urologic diseases.

Fig. 3. Zenon Leńko

After completing internships abroad, Leńko organized an independent urology ward at the State Hospital, and was the head of this ward in 1918-1927. From detailed notes left by Zenon Leńko we learn that between 1909 and 1928 as many as 100 doctors completed their internship in urology

[7] Mincer A. „Kilka uwag o ważniejszych zagadnieniach urologii". *Nowiny Lek.* 1901. 13 (11): 637-641.

there[8]. Leńko's work was continued by Stanisław Laskownicki (head of the ward in 1928-1939). In 1928 Laskownicki received his post-doctoral degree, and in 1938 the title of associate professor, becoming the first urology professor in Poland. He introduced and popularized many novel operating techniques: nephrocalycolithotomy (1924), grafting ureters to the rectum using Coffey's technique (1929), partial resection of the kidney in renal calculosis (1934), grafting muscle lobe after renal incision, his own technique for the resection of the vesical diverticulum (1953), his own technique for kidney suspension (1954), and many others[9].

Adam Mincer was the head of the first urology ward in Warsaw, established at the Holy Spirit Hospital in 1905. Then, in 1914-1918 the ward was managed by Antoni Leśniowski, and later by Jan Kiełkiewicz (1875-1929). Prof. Stefan Wesołowski called Kiełkiewicz 'a true urologist', because he initiated in Warsaw the dynamic development of urology as an independent specialization. Kiełkiewicz separated, expanded and popularized urology among doctors and patients. His student and successor, Wacław Lilpop (1884-1949) was a member, founder and the first chairman of the Polish Urological Association.

Efforts made by Tadeusz Pisarski (1878-1936) led to the establishment of the first urology ward in Kraków in 1929. For this purpose, specially adapted facilities were built, with an infirmary, x-ray room and an analytical laboratory. In 1937 Pisarski's work was taken over by Emil Michałowski (1906-1978) from Lviv.

Progress in all areas of life and scientific disciplines was disrupted by World War II. Because of damage and material loss many medical centres had to restore their urology wards from the very foundations. Fortunately, the pioneers in the new medical discipline had laid a very solid cornerstone for its future, so even the destructive power of war was unable to ruin them.

In Bydgoszcz, as in most other cities in Poland, the development of urology as an independent medical discipline began after the end of World War II in the Municipal Hospital, at Marii Skłodowskiej-Curie street no. 9 (now the Dr. Antoni Jurasz University Hospital no. 1 in Bydgoszcz). One of doctors from Bydgoszcz still has a surgical logbook with records from 28 October 1944 to 31 December 1945 (Fig. 4). The logbook contains strong evidence of the first urology surgeries which were carried out in Bydgoszcz after the war. We can read from the notes that the first urology operation – prostatectomy using Freyer's technique, was carried out on 10 April 1945 by Wojciech

[8] Bugajski A. „Dr wszechnauk lekarskich Zenon Marian Leńko – twórca pierwszych łóżek urologicznych w Polsce". *Urol. Pol.* 1991. 44 (3): 197-206.
[9] Wesołowski S. „Z rozwoju urologii w Polsce". *Pol. Tyg. Lek.* 1956. 11 (48): 2040-2048.

Staszewski, an outstanding surgeon from Bydgoszcz.

All the entries in the logbook are very brief and sometimes illegible. In some cases a diagnosis is missing, and some names of procedures are presented in a descriptive fashion or are mistakenly defined. However, we can assume that in the first year following the end of the war the first surgeons in Bydgoszcz carried out about 30 minor and major urology surgeries.

Fig. 4. Operationsbuch (surgical logbook)

In 1949 Dr. Wojciech Staszewski, organizer and head of the surgical ward at the Municipal Hospital in Marii Skłodowskiej-Curie street, inspired one of his assistants, Lucjan Nowacki, to begin a specialization in urology with Emil Michałowski in Kraków[10]. Nowacki initially worked as the only doctor at the subunit (from 1949), and then on the ward (from 1954) separated from the surgical ward of Dr. W. Staszewski.

That period is best depicted in a report by Stefan Wesołowski (Fig. 5), an assistant professor and a National Specialist in urology, who visited the hospital in Bydgoszcz for the first time on 18 and 19 December 1951.

[10] Boguszyński M. „Pierwszy bydgoski oddział urologii". *Primum Non Nocere* 2006. (5): 14-15.

Fig. 5. Stefan Wesołowski at his home

Notes from that period reveal many important details of the beginning of the urology ward in M. Skłodowskiej-Curie street: *"I consulted with patients, assisted at the surgical removal of calculus from the renal pelvis, participated in cystoscopies (…). The subunit has 35 beds for urology patients: 25 for men and 10 for women. Dr. Nowacki is a surgeon that began his practice in urology 2 years ago. He spent 14 months doing the specialization in urology at the ward run by assistant professor Emil Michałowski in Kraków, and one additional month in Warsaw. In working with urology patients he receives help from Dr. W. Staszewski (…). The subunit has good urology equipment (…) it has a Zeiss loop, G. Wolf's electrotome, and a set of instruments for Millin's prostatectomy made at local railway workshops. However, it lacks an electrical diathermy for incisions to enable the use of the electrotome, and has no indigo carmine"*. Over the years Wesołowski wrote that this was the only report from those times which revealed the ward to have good urology equipment in comparison to other visited medical centres. In conclusion he further said that *"a urology ward should be established, with a head doctor, two assistants and one nurse specialised in interventions. The shortage of equipment should be resolved"*[11]. Another report by the National Specialist was less enthusiastic: *"On 22 and 23 October 1953 I visited the urology subunit (…). Urology patients are under the care of medical doctor Lucjan Nowacki* (Fig 6), *helped by one nurse and one feldsher. On 22 October 1953 there were 10 female and 22 male patients (…). Medical records of patients are kept in a careless fashion. In some cases major notes on the performed procedures, such as cystoscopy, urether catheterization, etc. are completely missing. Patients are not described soon after their admission to the hospital but on discharge, when the most important facts are recollected from memory with much difficulty (…). Wound dressing is usually done by a ward attendant. Sometimes,*

[11] Wesołowski S. „Z początkowego okresu pracy specjalisty krajowego". *Pol. Przegl. Chir.* 1975. 47 (6a): 781-794.

post-operative patients are not looked after appropriately (…). In some cases patients do not receive a preoperative dose of penicillin or streptomycin (…). The patient's stay at the hospital is too long. This is caused by an insufficient number of doctors to attend 30 urology patients. A urology ward with 30 beds should have 1 head doctor, 2 assistants and 1 nurse specialised in interventions". Further, assistant professor S. Wesołowski admits that all malfunctions can be explained by the excessive workload, handled by a single doctor who was in charge of 30 urology beds for as long as 3 years. During this visit a decision was made to establish an independent urology ward in the first half of 1954. Finally, five years after the separation of the first beds for urology patients and the delegation of the first surgeon to train in urology an independent urology ward was established, the first in Bydgoszcz. Unfortunately, in 1956 Dr. Nowacki was dismissed from his position. Nevertheless, he was without doubt the first specialist in urology in Bydgoszcz, and the first head of the pioneering ward.

Fig. 6. Urological Department at Dr. Antoni Jurasz Hospital (M. Skłodowskiej-Curie street). Lucjan Nowacki during a procedure in his early working period.

For almost one year Bydgoszcz had no urologist and the ward had no head doctor. Henryk Gajewski applied for the vacant position of head doctor, and on 1 March 1957 he began work at the Bydgoszcz hospital (Fig. 7).

Fig. 7. Henryk Gajewski

Despite formal establishment in 1954 the urology ward actually began to exist in 1957, when H. Gajewski became its head. The time when the ward began to operate as a fully independent unit is best depicted in a report following the visit by the National Specialist, Prof. Stefan Wesołowski, that took place on 25 May 1957, just three months after doctor H. Gajewski took up his position: "*The ward has 33 beds for urology patients: 25 for men and 10 for women (...). Dr. Jędruszek and Dr. Jankowski are assistants here; also, there are other doctors working here who are doing their internship to obtain a specialisation in urology. I think that the new head of the ward, Dr. Gajewski, should have a free choice of his assistants. Between 1 January and 28 February 87 patients were treated at the ward and 14 surgeries were performed. Between 1 March and 25 May 121 patients were treated and 66 surgeries were performed, including many complicated ones. For example, Dr. Gajewski successfully operated on 3 patients with vesical fistula and 1 patient with uterovesical fistula, in whom he performed Boari flap ureteroneocystostomy. This is a difficult procedure, rarely done in Poland, and only by exceptionally skilled operators. The surgical outcome was good. Most patients suffer from prostatic adenoma. Other patients have tuberculosis, calculosis and cancer. Medical records on the ward are kept in good order. Patients receive good quality professional care. Ward facilities are not spacious enough. It is necessary to organize one additional small surgery room for cystoscopy. Currently this procedure is performed in the same room where wound dressing is done, which is inconvenient. The ward is poorly supplied. For over one year the ward had no manager, which had a bad influence on the supplies. First of all, the ward lacks cystoscopes and a good-quality electrodiathermy device. Work on the urology ward is impossible without it because electroresection cannot be performed. It is also necessary to create conditions for endoscopic examination in the x-ray room, which requires a urology table for x-rays. There is a table like that in the room, but without a lamp. The table has to be fitted with the missing equipment. The ward has considerable difficulties*

with obtaining sufficient blood supplies, which is of critical importance when treating urology patients undergoing serious operations, or elderly people, or patients after major blood loss. Dr. Gajewski is a valuable new member of the staff at the Provincial Hospital. He is young, talented, skilled in surgery, and is a hard-working doctor who should be supported in his activities to make the urology ward among the leading ones in Poland. I suggest: 1. Helping him with the choice of suitable co-workers. 2. Solving problems with shortage of equipment. 3. Giving permission and assistance to Dr. Gajewski to enable a 2-3 week visit to the Clinic and Department in Kraków, in autumn or winter this year, for training purposes".

With such recommendations from the National Specialist, received at an early stage of his career, it was easier to work and overcome all difficulties which would be of a similar nature until the end of his processional activity. The circumstances in the Polish People's Republic are well known – poverty under socialism, lack of basic resources for normal social function, resistance from authorities faced at every step and in each case, and prolonged severe crisis which Poland just began to overcome after 1990. These problems were described by Stefan Wesołowski, the National Specialist in urology, in late 1956: *"The national specialist during his visit had an opportunity to learn about a number of shortcomings and difficult conditions faced by his fellows working in provincial regions. Willing to improve the supplies, the national specialist continued to draw the attention of the governmental authorities to the need for fast elimination of shortages. He prepared necessary lists with distribution of urology equipment for the Management of the Material and Equipment Supply, he visited the Central Warehouse of Medical Equipment in Warsaw and relevant regional stores of Centrosprzęt (…). The national specialist sent information to individual departments when new equipment became available at the Central Warehouse. In 1956 the national specialist purchased directly from the USA the most necessary urology equipment worth USD 6000, to be distributed among all centres. Many out of order cystoscopes require minor repairs which cannot be done in Poland (…). It should also be noted that a high number of A.C.M.I. cystoscopes made in the USA are useless due to missing bulbs. In addition, there is a shortage of Tiemann's and Nelaton's catheters, filiform bougies, ureteral catheters, electrocoagulation probes, electrotomes, and electrodiathermy devices that could cut under water inside the bladder. The major problem is the shortage of contrast media for urography and x-ray plates. Currently, urography is the most popular and most valuable diagnostic method, and should be available to doctors and patients. The purchase of urology equipment is difficult because of the restrictive currency policy, but it seems that this problem is also caused by the lack of good professionals in the department dealing with the purchase of such equipment (…)"*[12].

[12] Wesołowski S. „Sprawozdanie z pracy specjalisty krajowego w zakresie urologii". *Pol. Tyg. Lek.* 1957. 12 (9): 328-330.

This was the reality in a post-war Poland thoroughly destroyed by the war. Nevertheless, urology continued to develop, and fifty years later Bydgoszcz, a provincial city which used to have only one urologist working there several years after the Second World War, has become a urology centre known in Poland and other European countries.(Fig. 8)

Fig. 8. Current staff of the Department of General, Oncological and Pediatric Urology , 1st University Hospital, Collegium Medicum, Nicolaus Copernicus University, Bydgoszcz, Poland