
ANTONI KRYSTIAN BRYK (1820–1881) – PROFESOR MEDYCyny SĄDOWEj (1852–1860) ORAZ DYREKTOR KLINiKI CHiRURGICzNEJ UNiWERSyTETu JAGiELLOŃSKIEGO W KRAKOWi (1860–1881)

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Streszczenie

Chirurgia jest najstarszą dyscypliną medycyny. Pierwsza w Polsce uniwersytecka klinika chirurgiczna została otwarta w XVIII w. Chirurgia, która do tej pory była domeną cyrulików i balwierzy, stała się dziedziną nauki. Dwa osiągnięcia, które zrewolucjonizowały światową chirurgię, to wprowadzone w XIX w. znieczulenie, pozwalające wyeliminować ból podczas operacji, oraz antyseptyka i aseptyka.

Autor omówił początki chirurgii akademickiej w Krakowie i jej pionierów, wykorzystując materiały i dokumentację z bibliotek oraz archiwów polskich, austriackich i niemieckich. Celem pracy było również przedstawienie szczegółowej biografii prof. Antoniego Bryka, dyrektora kliniki chirurgicznej w Krakowie, który wprowadził po raz pierwszy w Polsce antyseptykę i galwanokaustykę, co znacznie zmniejszyło zakażenia śródoperacyjne ran, zredukowało śmiertelność pooperacyjną, a także wpłynęło na poszerzenie zakresu przeprowadzanych operacji m. in. o operacje plastyczne kości i zabiegi śródczaszkowe.

Summary

Surgery is the oldest discipline in medicine. Poland’s first university chair of surgery was established in the 18th century. Surgery, which until then had been the domain of barbers and bath house attendants, became a clinical, scientific discipline. In the 19th century two milestones revolutionised surgery: the development of narcosis, which enabled painless surgery, and the introduction of antisepsis and asepsis. The author presents the beginnings of academic surgery in Cracow. Its pioneer surgeons are presented. Extensive research was undertaken to collect the literature and documents in Polish, Austrian and German archives and libraries in order to prepare this study.

Biographical details of the director of the Surgical Clinic, Prof. Antoni Bryk, are provided. He was the first person in Poland to introduce antisepsis and galvanocautery as routine procedures in the Cracow Clinic. The introduction of antisepsis contributed to a reduction in infection during surgery, and a reduction in postoperative mortality in Cracow Surgical Clinic. In this way Professor Bryk became the first Polish surgeon to apply Lister’s antiseptic method in the treatment of wounds. Thus enlarged, the scope of surgery for intracranial, bone and other procedures became routine.

Key words: history of medicine – history of surgery – Antoni Bryk – Cracow – Jagiellonian University.

Introduction

Poland’s first division of surgery was established in Cracow in 1779, during the reform of the Jagiellonian Academy by Hugo Kollataj. Surgery or manual intervention, which had up to then been the domain of non academic persons such as barbers, bath house attendants and wandering surgeons, became
the field of science. This symbiosis of manual treatment and scientific university surgery prompted the Cracow school of surgery, whose “backbone” was the Clinic of Surgery.

**Beginning of academic surgery in Cracow (Kraków)**

When Hugo Kołłątaj reformed the Cracow Academy he had no problem finding the right candidate for the newly created department of surgery. The first professor of surgery (together with anatomy and obstetrics) at the Jagiellonian University (JU) was the Piarist Rafał Czerwiakowski (1743–1816). His inauguration address was delivered on 29th January 1780 in the College of St. Barbara, which should be regarded as the cradle of the new Faculty of Medicine in Cracow. Czerwiakowski was the first Cracow physician who, as an anatomist, began to carry out dissections on human cadavers, and to this day he also remains a role model as an eminent teacher of the first generations of surgeons, and the author of the first Polish manual of surgery, “Nauka Chirurgii Unwersalnej” (Science of Universal Surgery), and of the six-volume work “Narząd Powszechnego Opatrzenia Chirurgicznego” (Surgical Dressing of Common Organs). Rafał Czerwiakowski was a professor of surgery in the years 1779–1803. He was an outstanding physician and master in the craft of surgery, great humanist and all his Attributes made him fully deserve the honour of being the father of Polish surgery. Czerwiakowski died in Cracow 1816 for tuberculosis.

His successor was young but outstanding surgeon from Johnesberger’s Castle (district Olomouc) Dr. Johann Nepomuk Rust. He ran surgical clinic in Cracow from 1803 to 1808. Among the subsequent professors of surgery in Cracow one name that deserves special mention is that of Ludwik Bierkowski (1801–1860). Bierkowski was born in Poznań and studied medicine in Berlin, where he received his surgical training in the Surgical Clinic of Prof. Johann Nepomuk Rust (1775–1840). Rust recommended Bierkowski for the post head of Department of Surgery in Cracow. After coming to Cracow, Bierkowski founded a new Surgical Clinic, modelling it on the examples of clinics in Germany and in France. Professor Bierkowski headed the clinic from 1830 to 1860. He established an archive of the history of diseases, a library associated with the Clinic, and an anatomopathological museum. He followed this by opening an outpatient department associated with the clinic, where the poor from the city and the surrounding region came to get help. He was the most eminent representative of Cracow surgeons during the uprising of November 1830, and for the part he played in this uprising he was later decorated with the Silver Cross of the Order of Virtuti Militari. He was the first in the Polish lands to introduce ether anaesthesia, in an operation carried out on 6th February 1847.

At that time removal of stones from the urinary bladder was one of the basic urological interventions. Bierkowski also carried out these operations, using a lateral perineal incision and taking less than 15 minutes to complete the procedure. His worthy successor in the Surgery Department and Clinic was Antoni Bryk [1, 2, 3, 4, 5].

**Successor of Professor Bierkowski**

After the death of Professor Bierkowski the government of the Austro-Hungarian Empire entrusted the Department of Clinical Surgery in 1860 to Antoni Bryk, professor of forensic medicine at JU since 1852. Bryk was unusual in many respects. Along with his youth, his time of struggling for his professional standing was far from easy. From early childhood he had to make his way in a foreign Austrian environment. During his entire period of education, without any financial help from his family, he had been left completely to his own devices [5, 6].

**Education**

Antoni Bryk (fig. 1) was born on 25th May 1820 in Dubiecko, an administrative district in Przemyśl County, the son of Józef, a villein peasant on land owned by Count Kazimierz Krasicki (1807–1882). He attended the village primary school. How did he get his preparatory (secondary) schooling? According to Professor Leon Wachholz, (…) he ran away from the family home to be able to get an education… From then on, from a young age, he spent his life abroad, in Austrian schools, most certainly under difficult
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financial circumstances. He finished Austrian secondary
school in the town of Czerniowce (Czernowitz) in the region
of Bukowina, and went on to study medicine in Vienna.
He completed his studies thanks to his natural abilities
and stubborn perseverance. on the basis of his dissertation
“Monographiam Morbi Brighti” he was awarded the degree
of Doctor of Medicine in 1846 [6, 7] (fig. 2).

Surgical, postgraduate education

He studied surgery in Vienna. After studies lasting
two years he perfected his practical skills in the Institute
of operations (Surgery) headed by Prof. Joseph Wattmann
(1789–1866), successor to Prof. Vincenz Kern (1760–1829) in
Vienna. Kern was a fierce opponent of transurethral lithot
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ripsy of stones in the urinary bladder. He engaged in virulent
polemics in professional periodicals and brochures, arguing
in the form of publications with Jean Civiale (1792–1867).
Professor wattmann, the founder of his own school of sur
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gery, which produced many renowned surgeons apart from
Bryk, was an adherent of transurethral lithotripsy and the
first to introduce this procedure in a Viennese clinic. As
a surgeon, Wattmann was distinguished by his calm and
steadfastness. As an academic teacher known for his lucid
and inspiring lectures he was popular with the students,
and as a doctor he was much esteemed in the capital of the
Monarchy for his friendly and easy way with his patients.
He treated his assistants calmly and tried not to dishearten
them in their surgical and scientific endeavours. The same
characteristics were later evident in Bryk’s behaviour and
activity as a professor and academic lecturer at Jagiellonian
University. Bryk received his surgeon’s diploma in the
Surgical Clinic in Vienna in 1848 [3, 6, 8, 9].

Refuge in the Austrian army (1848–1852)

Bryk’s professional career now almost came to an end
on account of his lowly social origins. The medical diploma
and his doctorate did not protect him from his feudal obli
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gations, and as the son of a villein he could be forcibly
brought home by the police. The owner of Dubiecko, Count
Kazimierz Krasicki (or rather the estate’s administration),
demanded Bryk’s return to his home village, so that after his
father’s death he would take over the holding. The only way
out was to join the military service, since the rank of officer
would exempt him from the duty of obedience. Antoni Bryk
took this route of escape, becoming a military surgeon in the
Austrian army. Despite his high political position and con
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nections, Count Krasicki was unable to satisfy his demands.
For this reason, since his studies in Vienna, he had
a negative opinion of the position of Polish nobles, who
proclaimed egalitarian values in an attitude of Catholic
‑patriotism. In reality it was difficult and even impossible
for capable Poles to gain education, as they were seen as
only cheap labour.

In 1848 Bryk served in the Hungarian campaign as
a regimental surgeon in the Austrian army, and inter alia
held the post of Commandant of a military hospital in
Theresienstadt (now Terezin in the Czech Republic). After
a year spent in Hungary he became a surgeon in the Surgical
Division of the Garrison Hospital in Lwów (Lemberg, now
Lviv), and there he remained for the next three years [2, 6, 9].

Professor of forensic and police medicine

at Jagiellonian University (1852–1860)

In 1852 the Ministry of Education in Vienna appointed
Antoni Bryk a professor of government (i.e. forensic) medi
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cine and police medicine at JU. At that time, five years after
receiving his diploma, Bryk still had few scientific achieve
ments to his credit – his principal occupation was teaching
as a university lecturer. As in the past, because of the lack of
dissection material, the training of medical students was at
that time purely theoretical, and Bryk was constantly endeav
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ouring to place strong emphasis on the practical schooling of
the future cadres of doctors. He applied both to the Faculty
of Medicine and to the Ministry of Justice for cadaveric
material, but all these requests to judicial and municipal
authorities were unsuccessful. The Ministry of Justice did issue an order that forensic and hospital dissections should be passed on to the professor of forensic medicine, but in spite of this order the municipal authorities of Cracow failed to provide the department with experimental material. The only help came from J. Kwaśniewski, a professor of obstetrics, who supplied the cadavers of newborn babies.

Forensic and police hospital autopsies were carried out in the dissecting rooms of Pathological Anatomy, known at that time as clinical dissecting rooms, situated in a small single-floor building of Medical Chemistry.

In 1855 the National Government took over two Cracow hospitals – St. Lazarus' Hospital and Holy Ghost Hospital, and Bryk was made the provisional director of both. Bryk's extensive work “on blood crystals and their significance in the forensic examination of blood”, published in German dates back to that time (fig. 3).

After eight years as the head of the Department of Forensic Medicine, on 21st July 1860 Bryk was called to take over the directorship of the Surgical Clinic of JU [9, 10, 11, 12].

Full professor of surgery and director of the Surgical Clinic of Jagiellonian University (1860–1881)

Following the death of Prof. Ludwik Bierkowski, in 1860 the government of the Austro-Hungarian Empire placed Prof. Antoni Bryk in charge of the Surgical Clinic Department of JU. He resigned from his position as the head of the Institute of Forensic Medicine, but in the absence of a successor he had to continue his lectures to students there too for some time.

Bryk remained the head of the Surgical Clinic for the next 21 years. The Clinic consisted of two wards, had 20 beds, but its equipment situation was not very good (fig. 4). At that time the situation of many European clinics was pretty much the same.

As a doctor Bryk kept a close watch on the latest developments in western European science, and was an ardent admirer of science and progress, though he always approached it with a critical measure of reserve. He introduced new therapeutic methods, promoting their wide adoption. As a forerunner of antisepsis, he published a number of experimental works on how wounds and tissues are affected by the action of chlorine and of the chlorides of mercury and of platinum and gold. And when in 1867 Joseph Lister (1827–1912) published his epoch-making paper “On a new method of treating compound fracture, abscess, etc.”, Bryk shortly afterwards, i.e. two years later (1869), introduced the use of carbolic acid in his Surgical Clinic. In this way he became one of the first Polish surgeons to apply Lister’s antiseptic method in the treatment of wounds, thus contributing to a reduction in postoperative mortality in Cracow’s Surgical Clinic. Hilary Schramm interpreted this innovation in the Cracow Clinic as follows: From the time of the introduction of a strictly antiseptic surgical technique and treatment by Lister the scope of surgical operations became greatly increased, and operations that were still 10 years ago either completely unknown or whose undertaking was excluded by the grave danger of sepsis and pyaemia are today almost routine. Osteotomy… and trepanation of the skull should also be included among such operations [8, 13, 14, 15] (fig. 5 and 6).

However, in time Bryk became convinced that carbolic acid was not a panacea in the battle with infections. He expressed his opinion rather extravagantly, which today strikes a strange note, in a paper entitled “Beiträge zu das Rezektionem”: According to my experience, I cannot confirm the exaggeratedly applauded results of this method of treatment… and the notions of certain surgeons, which lead to the weird ideas of disinfecting ligatures and sutures.

Apart from the practice of antisepsis, Bryk was the first in Cracow to use a completely new method, known as galvanocautery. He himself already had several years
of experience with this technique. The equipment, consisting of a battery and a galvanocauterizing loop, served him to remove polyps from the nasopharynx, and from the reproductive organs in women. Usually, he removed superficial neoplasms, but also performed amputations of the mammary gland and the penis. He also applied galvanocautery in other surgical and gynaecological procedures.

According to Bryk, the greatest virtue of this method was its haemostatic action, especially in parenchymal bleeding, and the good healing of the postoperative wound. He authored a fairly long paper on this subject in “Przegląd Lekarski” (fig. 7), and in the same year published three equally extensive works in “Wiener Medicinal-Halle” [16, 17].

An epoch-making event in Cracow at that time was the performance of tracheostomy in a child dying from diphtheria. As the child was expiring from obstruction of the larynx with the membranes of diphtheria, Bryk made an incision through the trachea, and when it proved impossible to introduce a “Bourgelat cannula”, and the child’s condition was growing progressively worse, Bryk sutured the edges of the trachea to the skin on both sides, saving the life of his small patient. He stayed by the child’s bedside himself, and when the trachea became plugged up by a blood clot he sucked it out with his mouth. In December 1860, at a meeting of the Division of Natural History and Exact Sciences, Bryk read a paper on “The use of the knot suture in tracheotomy”, which came as a considerable revelation. On this occasion he was congratulated by Prof. Józef Dietl.
who said that: *the performance of tracheotomy in this city was mentioned in the protocol as epochal in the history of manual medical treatment in our country* [6, 8].

Bryk was a surgeon par excellence. Writing in “Przegląd Lekarski” after Bryk’s death, Bolesław Skórecewski said: *As a physician and surgeon he was undoubtedly a master both from the standpoint of technique and knowledge of the subject. He knew how to win the hearts of his students and patients*. This was also confirmed by the author of Bryk’s obituary in “Przegląd Lekarski”, who emphasized not only Bryk’s surgical talent but also his youthful enthusiasm and boundless perseverance: *Bryk was a man of science in the broadest sense of this word* [18].

**Educational, publishing, and scientific activity**

Antoni Bryk lectured five times a week for three hours, among other subjects on “Detailed pathology and the therapy of surgical diseases together with surgical clinic”, and also for one hour on “Surgical instruments and bandages”. He spoke quietly, but the lectures were interesting. His students glimpsed his true greatness when he unfolded before them his extensive, fundamental, and all-embracing knowledge gained by continuous arduous work. He valued diligence in the students, and he singled out those who displayed a sincere willingness to work. As an examiner, he was demanding and strict. His students and fellow doctors emphasized in their memoirs that this was a man of far-reaching faith, an outstanding surgeon, and a valued teacher. He never failed to keep up with the latest advances, and it is to him that our surgery is indebted for the early introduction of surgical antisepsis.

Bryk lived in a society that was highly conservative. As a Pole, despite his upbringing in a foreign spirit, he was favourably inclined to the January uprising. He prompted his assistant J. Gawlik to write a Polish handbook of field surgery, giving him access to his own notes. He adopted Polish attire, wearing an old-fashioned Polish overcoat. However, when the uprising ended in a military disaster he changed his mind and adopted a critical attitude.

He himself came in for criticism on the part of the Polish academic community when, in 1864, together with Prof. Wentzel Treiz (1819–1872), he opposed the demands of Prof. Józef Dietl (1804–1878) and Karol Gilewski (1832–1871) that lectures in the Faculty should once again be given in Polish. He defended German as the lecture language at JU, considering that: *the Polish language is not yet scientifically developed*. Remembering his servitude in Dubiecko and the associated bitter problems he felt antipathy to everything that was Polish, and he was grateful to the Austrian government for his education and protection from the bonds of servitude. On the other hand, when in 1869 the government in Vienna granted Galicia autonomy, and restored the Polish language for university lectures, Bryk lectured in Polish to the end of his life, introducing science to the young, talented refugees from the Russian part of Poland. Bryk tried in later years, and at his own expense, to assist other talented compatriots and allow them exemption from service servitude, in order to study science in schools and universities [5, 6, 8, 18, 19].

**The head of the Surgical Clinic and his assistants**

As the head of the Surgical Clinic, Bryk had one very valuable attribute: he required his assistants to publish their work, and in preparation of these papers he offered his help and advice. Thanks to this, much information about the clinic’s organization of its work and achievements has remained to this day. He was kind to his assistants, encouraging them to undertake scientific work, from which they gratefully drew benefit. With Bryk’s help his assistants published many valuable communications and clinical reports. Bazyli Kluczenko in particular provided an insight into the nature and number of procedures carried out at the clinic in an unusually painstaking and pedantically written report for the year 1860–1871. One of the students, Julian Olpiński, was persuaded by Bryk to present his rich clinical material concerning the surgical treatment of ear diseases. Olpiński’s publication covers a wide range of operations in otiatric disorders, presented in the form of diagnostic and above all therapeutic achievements, and is still cited today in the professional literature. What particularly deserves mention, strange and unworlly as it may be by today’s standards, is that, following the example of the Vienna clinic, Bryk never added his name to any work published by his assistants. But he also never added their names to his own publications [20, 21, 22].

**Antoni Bryk – initiator and co-founder of “Przegląd Lekarski” (Physician Review)**

The possibility and the method of publishing a Scientific Society yearbook was from time to time discussed at the meetings of the Division of Natural History and Exact Sciences from December 1860, and it was then that Bryk suggested the publication of a scientific periodical. According to the minutes of this meeting: *This led fellow member Bryk to voice his long-held wish that the Division of Exact and Medical Sciences should publish a scientific periodical, to come out, if possible, at short intervals. This is urgently required by a didactic aim, by consideration of the younger generation, before which a new field for work and gaining merit would be opened, and finally by the need for a close bond between the school and its former pupils and even the entire country*. The Scientific Society yearbook would remain, as before, a treasure house for work of wider dimensions, for deeper and more extensive studies. The other members whole-heartedly supported Bryk’s proposal, and the
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resolution was passed. When “Przegląd Lekarski” came into being Bryk was one of its founders, and remained on the editorial board from 1862 to 1864, when he voluntarily resigned his position. Nevertheless, he continued to publish in many of his works “Przegląd Lekarski” [6, 8, 23] (fig. 8).

**Urological publications**

The total number of Bryk’s publications runs to around 50. He published mainly in Austrian medical periodicals and in “Przegląd Lekarski”, on subjects broadly relating to surgery and on closely related topics, among them anaesthesia, antisepsis, galvanocautery, compression of blood vessels (acupressure) and operations on constrictions of the external part of the urethra (the anterior penile section). In addition to a wide range of operations in general surgery, Bryk also carried out operations on the urogenital system. In 1859 he published an extensive work entitled “Zur Casuistik des äussern Harnröhrenschnittes nebst Bemerkungen über diese Operation” (fig. 9). In this 10-page article he described in very great detail the origin, symptoms and treatment of this disorder, discussed his own surgical experience, and presented the views of other authors. In the year 1861 he returned to this problem in a multipart publication in “Österreichische Zeitschrift für praktische Heilkunde”. To a review of current literature published all over the world he added six of his own cases, patients operated on in the Cracow clinic. Most often he operated on patients with local complications, such as fistulas and urinary infiltration of the external genitals, the perineum, and the hypogastrium. The operations consisted of opening up and drainage of the abscess or infiltration, excision of skin fistulas, urethrotomy at the place of constriction of the urethra, and resection of its cicatrization (most commonly in the perineal region). Postoperatively an indwelling catheter would be fitted, for constant or regular catheterization. At a later stage the patients were catheterized at longer and longer intervals. In Bryk’s report an improvement in micturition had been achieved in five cases, and the recurrent local inflammatory conditions had been eliminated. In one patient the operation was complicated by massive inflammation (erysipelas). In 1861, Professor Bryk published an extensive work about serious clinical complications of hernia (zur Casuistik der Bruchsackzerreisung. oster. z. pract. Heilkunde) [6, 8, 16, 18, 24, 25, 26].

**Membership of professional scientific organizations**

Among others, Bryk was a member of the Cracow Medical Society, the Zoological and Botanical Society in Vienna, and the German “Hochstift” Society in Frankfurt-am-Main. In 1875 he represented this last society on the occasion of the opening of the Austrian University in Czerniowce.
(Czernowitz) in the Bukowina region, the city where he had finished his secondary education [6, 8].

**Private life**

The memory of his family’s serfdom, the gratitude to those who delivered him from his feudal obligations, and the many years spent in education and studies in Czernowitz and Vienna resulted in the fact that, even though a Pole by origin and by birth, Bryk treated everything Polish with caution and major reservations. He was a loyal Austrian subject. In Cracow, he married Elise Henriette neé John, daughter of a German brewery owner in Cracow. He was a great admirer of German and British science.

He devoted much attention to his patients and to sufferers looking for help in his university. Thanks to his comprehensive knowledge and excellent surgical ability, he was highly valued as a surgeon in Cracow circles. And yet, despite the immense appreciation of his knowledge, his diligence, and the services he provided to his many patients, who owed him their health and their life, he always remained an outsider among many colleagues and patriotic members of society.

He died in Cracow on 16th July 1881, and was buried in Rakowicki cemetery in band K, in the tomb of the John family, owners of the largest brewery in the city. Subsequently, his body was moved to the family grave, in plot S. But this was not the end of his posthumous wandering. In 1904 he was exhumed once again and transferred to Vienna, where on 10 June he was laid to rest next to his wife in Vienna Central Cemetery – Wiener Zentralfriedhof, plot 42a, row 61, grave 29 (fig. 10). The press responded to these events with deafening silence.

And perhaps the main reasons for this condemnatory attitude were human vices and human weaknesses, such as resentment and envy. Bryk ran a rich private medical practice, and apart from this, by virtue of his marriage, he belonged to the elite of Cracow society [6, 8, 13, 17].

**Afterword**

Three eminent professors of surgery in Cracow, i.e. Bierkowski, Bryk, and Mikulicz-Radeccki, were nominated for the post of head of department, bypassing the Council of the Medical Division of JU, which caused them some initial difficulties in their activity in Cracow academic circles. In spite of this, it was precisely these three men who proved to be the pillars of the development of Cracow surgery. Bryk and Mikulicz-Radeccki in particular had to put
up with the hostility of professionally limited but resentful individuals. Even Prof. Józef Dietl, who came from a mixed marriage (his father was German and his mother Polish), in spite of his ardent, in fact almost fanatical, Polish patriotism, and who made immense contributions to the University and the city of Cracow, had some resentful opponents in the Cracow City Council. In the end, when this hostility made his position increasingly difficult, Dietl stepped down from the city’s presidency and yielded the mandate to the City Council.

References