

Review Article

Andrew Obrzut - Eminent Polish Professor, First Head of the Department of Pathological Anatomy (1896-1910) of the Medical Faculty of Lviv University

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Abstract: This paper presents an overview of the history of life, scientific and pedagogical activity, major achievements of a great Polish pathologist Andrew Obrzut. Andrew Obrzut was born in Poland, studied at the Medical Faculty of the Jagiellonian University in Cracow (Poland) and received a diploma of the Doctor of Medicine. Andrew Obrzut was a student of the founder of the Czech Institute of Pathological Anatomy Yaroslav Hlava and in 1887 defended his dissertation for the post-doctorate scientific degree of medicine on the topic "About blood's participation in the onset of the inflammatory process" in Prague. In 1891-1896 he was a professor in the Department of Pathological Anatomy at the at Charl's University in Prague. Andrew Obrzut greatly influenced the development of Pathological Anatomy in Poland, Czechy and Ukraine. In 1896, he accepted the proposal of Yaroslav Hlava to organise a department of pathological anatomy at Lviv University. On 9th December 1896, the first lecture "On the Importance of Pathological Anatomy for Medical Education" was read to the students of the third year of study in the Faculty of Medicine of Lviv University, in the lecture hall, by the doctor of medicine, Professor Andrew Obrzut and this day is considered the date of foundation of the department. Andrew Obrzut - the organiser of the Museum of Human Diseases (1896-1910) of the Medical Faculty. The scientific achievements of A. Obrzut are summarised in unique publications published in German, Polish, French, and Czech language about new research on the pathogenesis of glomerulonephritis, tuberculosis, caseous pneumonia, amyloid degeneration and others. However, the first of all his merits for the readership of Polish and Ukraine pathologists was his a two-volume textbook on Pathological Anatomy and Bacteriology. Andrew Obrzut remains an outstanding example of a very careful and precise pathologist.

Keywords: Pathological Anatomy, Medical Faculty, Lviv, the Museum of Human Diseases

1. Introduction

The history of Lviv Medical University goes back to 1661, when on 20 January the Jesuit Collegium in Lviv by the privilege of Polish King John II Casimir acquired the status of academy. It consisted of four departments and was awarded the title of the university. However, until the break-up of the university in 1773, the full-blown medical department was not established.

On 16 November 1784, according to the privilege of the

Austrian emperor Joseph II, signed on 21 October 1784, Lviv University was revived with four faculties: theology, philosophy, law and medicine [1, 7]. Since then Danylo Halytsky Lviv National Medical University started counting its age.

History of Lviv Medical University is closely related with eminent personalities that had a great impact on the development of medical science.

Andrew Obrzut (02.02.1854-29.09.1910) (Figure 1) was a professor of medicine in Prague and Lviv, a student of the founder of the Czech Institute of Pathological Anatomy

Jaroslav Hlava. The scientific achievements of A. Obrzut are summarised in unique publications published in German, Polish, French, and Czech language about new research on the pathogenesis of glomerulonephritis, tuberculosis, caseous pneumonia, amyloid degeneration and others. However, the first of all his merits for the readership of Polish and Ukraine pathologists was his a two-volume textbook on Pathological Anatomy and Bacteriology. Professor greatly influenced the development of Pathological Anatomy in Poland, Czechy and Ukraine. Andrew Obrzut remains an outstanding example of a very careful and precise pathologist. [6].

Thus, this manuscript consists of a history of Andrew Obrzut life, his major achievements and a description of him as a great teacher and scientist.

2. Impact of Andrew Obrzut on Development of Pathological Anatomy

Andrew Obrzut was born on 2.02.1854 in the town of Siolkov, Gribovsky district in Poland (Polish: Powiat Grybowski) into the family of a peasant named Joseph.



Figure 1. Andrew Obrzut.

He graduated from a New Sonch Gymnasium (Nowy Sącz, Poland). In 1875-1881 he studied at the Medical Faculty of the Jagiellonian University and received a diploma of the Doctor of Medicine (Figure 2) [2, 13].

In 1881-1883 he worked as a military doctor in Prague and at the same time specialised in pathological anatomy under the Austrian pathologist - Professor Chiari. A few years later he published an article in which he presented a number of cases of developmental defects and proposed his own theory of forming hydrocephalus in patients. In 1887, H. Chiari published a classic monograph on the subject. Today the defect is known as the “Chiari malformation” - the lowering of the tonsils of the cerebellum into the large occipital hole with compression of the medulla oblongata. In severe cases hydrocephalus, syringomyelia, and meningocele also occur [5].



Figure 2. Medical Faculty in Jagiellonian University in Cracow (Poland).

In 1883-1887 Andrew Obrzut worked as an assistant to Professor Jaroslav Hlava (7.05.1855-31.10.1924) (Figure 3) in the Department of Pathological Anatomy at Charles University in Prague and in 1887 defended his dissertation for the postdoctoral degree in medicine entitled “About blood’s participation in the onset of the inflammatory process” (Figure 4) [10].



Figure 3. Jaroslav Hlava.

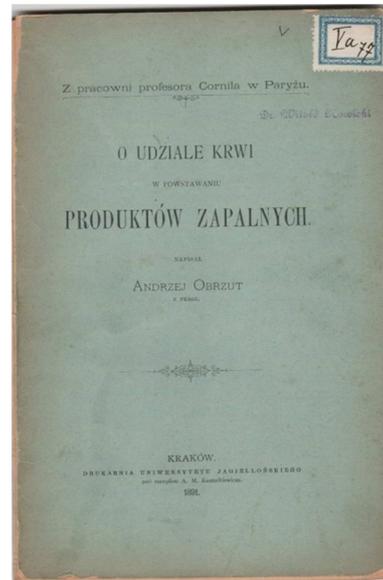


Figure 4. Scientific work for the postdoctoral scientific degree in medicine.

The scholarship, which was obtained in the years 1889-1891, made it possible for him to receive further specialisation under Professor F. Recklinghausen in Strasbourg and Professor A. Cornell in Paris.

In 1891-1896 Andrew Obrzut was a professor in the Department of Pathological Anatomy at the University in Prague. In 1896, he accepted the proposal of Jaroslav Hlava to organise a department of pathological anatomy at Lviv University. In the same year, the young doctor of medicine with a European medical diploma, Andrew Obrzut, arrived at Lviv University [4, 15].

The Department of Pathological Anatomy of the Faculty of Medicine began its educational and scientific life in a unique three-storey patho-anatomical building (architect - Josef Braunseis) with two lecture rooms, four sectional halls (one with an amphitheatre), a large pathological laboratory, a large museum hall, study rooms, and cabinets for projectors. It is worth emphasising that 2017 was the year of the 180th

anniversary of Josef Braunseis (1837-1915), an architect whose life and creativity was closely linked with the history of Lviv.

His work is an example of progressive architectural thought, realized in numerous buildings intended as educational, scientific, and medical institutions. The masterpiece of the architect's art is considered to be the architectural ensemble of the medical faculty of Lviv University (52 Pekarska St.), which was opened on 9th September 1894 (Figure 5). This building is not only a masterpiece among the educational buildings of the city, but also the pride of many generations of scholars. The architectural ensemble of J. Braunseis retains historical value that ought to be preserved for future generations [11].



Figure 5. Architectural ensemble of the medical faculty of Lviv University, architect - Josef Braunseis.

On 9th December 1896, the first lecture “On the Importance of Pathological Anatomy for Medical Education” was read to the students of the third year of study in the Faculty of Medicine of Lviv University, in the lecture hall, by the doctor of medicine, Professor Andrew Obrzut. On the same day, after the lecture, the professor made the first (in the department) demonstrative autopsy and compiled a protocol for a pathological study of a sectional case. It is still stored in the archive of the “Museum of Human Diseases” (Figure 6).

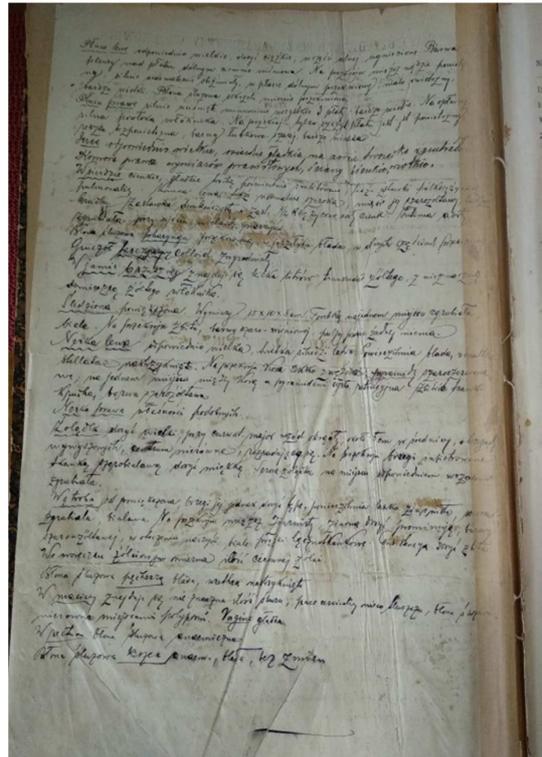


Figure 6. Autopsy report N1, 9 December 1896. Zofia Teliczek, 60 years old, worker. Clinical diagnosis: liver cirrhosis, ascites. Pathological diagnosis: liver cirrhosis, ascites, lung compression, acute pleuritic, left-sided pleural effusion, venous stasis of spleen, anasarca, hydroperitoneum, gastric medullary carcinoma.

The staff of the department consisted of Professor A. Obrzut, assistants: R. Kutchera and J. Kzhishkovsky, two laboratory assistants, and one anatomist. In 1904 Doctor W. Nowicki joined the staff of the department. Scientific research was guided by the ideas of Professor Jaroslav Hlava and by the principles and methods of the Czech Institute of Pathological Anatomy [3, 12].

Simultaneously with the organisation of the department, Andrew Obrzut founded the Museum of Human Diseases at Lviv University (Figure 7). The first exhibits were brought by him from Charles University in Prague. Such were the beginnings of the scientific life of one of the oldest institutes of pathology in Ukraine (Figure 8).

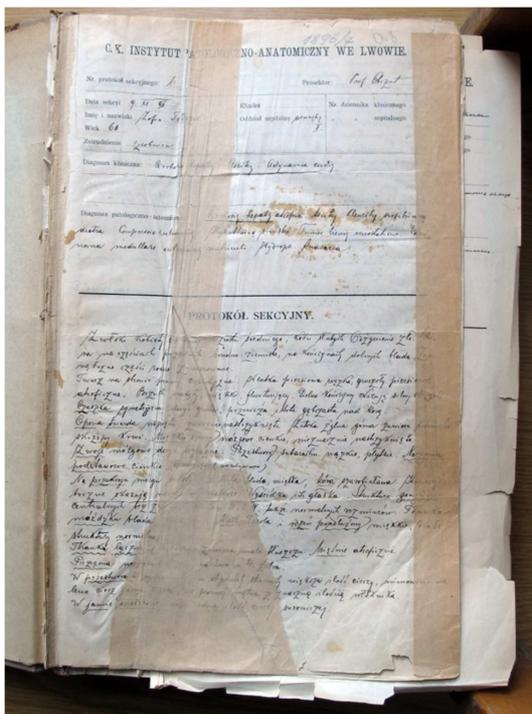


Figure 7. Museum of Human Diseases of Lviv University.



Figure 8. First exhibits were delivered from Charles University in Prague.

At the university, the scientist-pathologist worked until 1910, or rather, until the last days of his life. Founded by Andrew Obrzut, the archive of pathologic anatomical sections is kept to this day and is supplemented all the time. Currently there are 89 thousand protocols (from 120 years) in the archive.

Andrew Obrzut speaking to students and doctors always emphasised that [15] “the greater knowledge of pathological anatomy is, the greater the confidence in diagnosis and the better individualization and rational treatment, and ultimately - correct, competent, and specific epirises are” [“About the importance of pathological anatomy for medical science” (*O znaczeniu anatomii patologicznej w naukach lekarskich*). Book published by Przegląd Lekarski 1897.

The scientific achievements of A. Obrzut are summarised in publications published in German, Polish, French, and Czech in book form. Books published by Przegląd Lekarski: “About giant cells in inflammatory infiltrates and some tumours” (*O komórkach olbrzymich w na-ciekach zapalnych i w niektórych nowotworach*), *Przegl. Lek.* 1887; “Caseous pneumonia” (*Pneumonia caseosa*) Praha 1887; “About the histology of Bright’s disease” (*Przyczynek do histologii choroby Brighta*), *Przegl. Lek.* 1888; “About haemorrhagic inflammation of the kidneys and the importance of haemorrhages in the renal parenchyma” (*O zapaleniu nerek wybroczynowym i znaczeniu wybroczyn w miąższunerkowym*) *Przegl. Lek.* 1888; “New research on the pathogenesis of glomerulonephritis” (*Nouvelles recherches sur la pathogenie de glom-erulonephrite*) *Revue de med.* 1888, p. 689-106. *Arch Med* 1889; “About blood’s participation in the onset of the inflammatory process” (*O udziale krwi w powstawaniu produktow zapalnych*) 1891 Printing house of the Jagiellonian University.

In particular, in the article “Contribution to the histology of inflammation of the glomeruli malpighi (glomerulonephritis)” (*Przyczynek do histologii zapaleń kłębków Malpighiego (glomerulonephritis)*), presented in book (Cracow, 1888) the printing house of Jagiellonian University, Andrew Obrzut raised the problem of structural changes in glomerulus and morphological diagnosis of glomerulonephritis, which was the main problem in clinical nephrology and the most common cause of chronic kidney disorder. Today, patients with glomerulonephritis constitute the main contingent in the department of chronic hemodialysis and kidney transplantation.

Andrew Obrzut was the organiser and a participant of the V and VI medical congresses in Poland. On 17th-22nd July 1888, the V Congress of Physicians and Naturalists was held in Lviv. At the congress, A. Obrzut gave a lecture “About hemorrhagic inflammation of the kidneys and the importance of hemorrhages in the renal parenchyma”. The fifth Congress (16th-20th July 1891) of Polish Physicians and Naturalists, which was held in Cracow, was remarkable to specialists because of the new achievements of A. Obrzut. He presented the results of his new pathological studies of kidney diseases in “New data on the histology of amyloid degeneration” (*Nowe dane o histologii amyloidu degeneracji*), which raised a discussion among a wide audience of Polish physicians and naturalists.

Together with his teacher, Professor Jaroslav Hlava, he published a two-volume textbook on pathological anatomy *Patologicka anatomie a bakteriolegie* (Prague 1894, 2nd edition 1902, 799 pages) (Figure 9) [9].

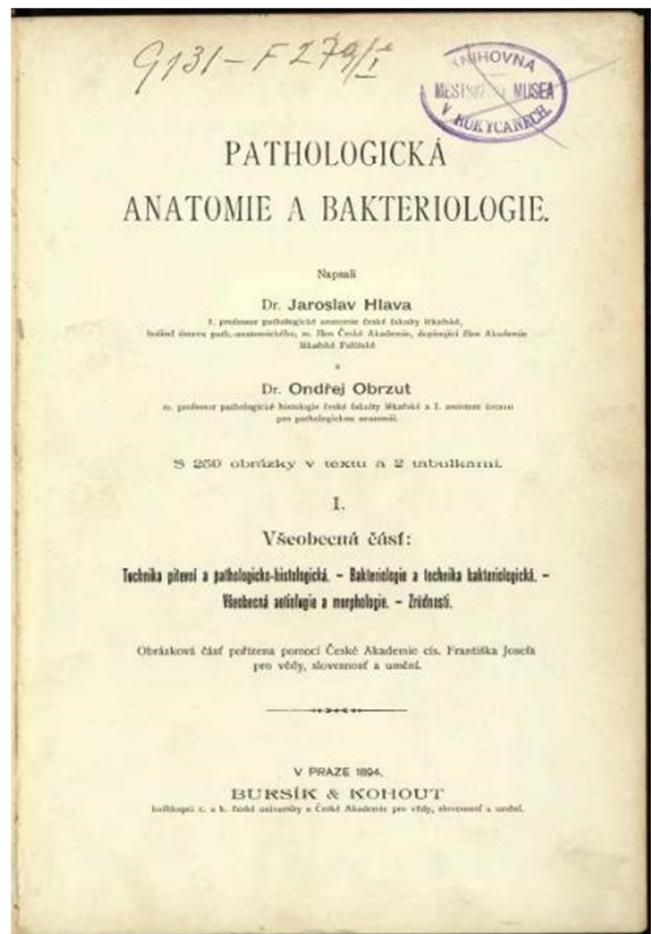


Figure 9. Textbook of pathological anatomy “Pathological Anatomy and Bacteriology”.

Due to his special personality and significant scientific achievements, Prof. A. Obrzut formed a scientific medical school in Lviv [16], in which, for example, Prof. Napoleon-Jan Gąsiorowski (28th June 1876, Lviv - 27th June 1941, Lviv) studied scleroma, tetanus, dysentery, and cholera, and in 1902 he founded the histomicrobiological laboratory

and subsequently organised and headed the Department of Microbiology.

Józef Antoni Markowski (29th October 1874, Lviv - 29th May 1947, Dąbrowa Tarnowska, now Małopolska Voivodeship, Poland) - anatomist, professor (1913), active member of the Krakow Academy of Sciences (1930), who graduated from Lviv University (1900) where he worked intermittently: during 1913-1920 and 1922-1944 - established a micro-, macro-, and X-ray photometric laboratory. He organised and headed the Department of Normal and Topographic Anatomy, from 1920 - the Dean of the Faculty of Medicine; 1920-1922 - Professor of the Department of Normal Anatomy at the University of Poznań, where he founded the Anatomical Museum. He participated in the work of the Red Cross service in Lviv, studied anatomy and physiology of the central nervous system and the cardiovascular system, and he described the histogenesis of the solid membrane of the brain, and the development and structure of its arterial and venous channels. He also examined the toxic effects of nicotine on the activity of the cardiovascular and respiratory systems.

3. Conclusions

Summing up a brief historical review of the foundation of the Department of Pathological Anatomy, let us recall the words of the prominent Ukrainian poet Maxim Rylsky: "Whoever does not know his past is not worth his future. He, who does not honour the prominent people, also is not worthy of respect". And today, when Department of Pathological Anatomy and Forensic Medicine of Danylo Halytsky Lviv National Medical University celebrates its 120th anniversary, we bow our heads in honour of the distinguished scientists - founders, wonderful educators, and researchers- and continue to write about the history, traditions of high-quality education, the union of education, science and practice, international recognition, and continuous improvement of training of specialists in accordance with the requirements of modern society.

Today 22 scientific schools actively function and develop in University. Every Year Danylo Halytsky Lviv National Medical University Ranks Among Top 3 Medical Institutes in the Country. Web metrics (2019) gave it a Country Rank of 12 out of 320 Universities in Ukraine, a World Rank of 3551 out of 27219 Universities in the World, a Continental (Europe) Rank of 1107 out of 5833 Universities in Europe.

In 2009, when the medical university celebrated its 225th anniversary since its foundation the Government of Ukraine launched a 5 Ukrainian Hryvnia Coin with the Seal, Name and Motto of the Medical University in the Honour and Respect of the Prestigious Institution.

Today Danylo Halytsky Lviv National Medical University combines 6 faculties, medical college, 78 departments (including 48 clinical departments), 14 academic buildings, 41 affiliated hospitals, University dental medical Centre for more than 2000 attendances during shift, teaching drugstore, botanical garden, CRL and Laboratory of industrial toxicology,

Institute of clinical pathology, research centre for investigation of anticancer drugs, scientific library, 8 student hostels, sanatorium, student cafes and canteens, sports and health recovery camp "Medyk".

At 78 University departments, at the Institute of Clinical Pathology, in the Central Research Laboratory (CRL) and Laboratory of industrial toxicology are working 1211 scientists: 134 Doctor of Sciences and more than 620 PhD degree holders, including 113 full professors, 369 associate professors, 50 senior tutors, 662 assistant professors, 17 researchers. Among them there are 23 Members, 7 Corresponding Members of Academy of Sciences, 12 Honored Workers of Science and Technology, 7 Honored Workers of Education, 19 Honored Doctors, 1 Honored Worker of Physical Culture and Sport, 8 Laureates of the State Prize of Ukraine in Science and Technology.

Conflict of Interest

The authors declare no conflicts of interest.

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