

Distinguished Polish internists: Witold E. Orłowski and Mściwój M. Semerau-Siemianowski

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Witold Eugeniusz Orłowski In the 19th and 20th centuries, many distinguished general practitioners lived and worked on the Polish territory, whose significant achievements and discoveries enriched the world's medical scientific output. In the following article, the life and activities of two Polish internists born in the middle of the 19th century were presented, namely, of Witold Eugeniusz Orłowski and Mściwój Maria Semerau-Siemianowski.

Witold E. Orłowski was born on January 24, 1874, in a Polish noble family from Norwidpole in the Minsk province. He graduated from a junior high school in Vilnius in 1891. He then started education at the Military Medical Academy in Petersburg, from which he graduated with honors in 1896. Subsequently, he became a volunteer at the department of internal diseases in Petersburg. Having obtained the title of medical doctor in 1900, he became head of the women's ward at the department. In 1903, he was granted *veniam legendi* in the field of internal diseases. Between 1895 and 1912, during summer months, he worked in the Essentuki health resort in the Caucasus, where he supervised the medical unit and ran a private practice. He was appointed an associate professor in 1907 and a full professor in 1913 at the University of Kazan, where he simultaneously became head of the department of internal diseases.

Already during his university years, he was genuinely interested in Polish medical literature and he was in close contact with the Polish medical society. In 1901, he was involved in the establishment of the Polish Physicians' Circle in Petersburg. As secretary of the society in the years 1903 and 1907, he published reports of its activities in the Cracow-based *Medical Review* (*Przegląd Lekarski* [Polish]). In 1907, he became an honorary member of the newly founded Federation of Polish Physicians and Naturalists in Petersburg. His patriotism is best reflected in contemporary Russian press, where he called

for the introduction of the Polish language as well as courses in Polish literature and history into Russian schools. During the First World War, he was the initiator of organized care over the Polish prisoners of war and Poles evacuated to Russia from the annexed Polish territories. He supervised the foundation of the Polish House, amateur theatre, people's university, three primary schools, eight-year junior high school, courses for illiterates, courses of the Polish language and literature, and, finally, shelters for children. In 1916, he founded the *Polish Medical Monthly* (*Polski Miesięcznik Lekarski* [Polish]) in Kiev. During the revolution of 1917, he presided over the Council whose goal was to unite all Polish organizations independently of political views. He also represented the Polish population in the Kazan City Council. As a member of the Kazan's Land Office, he was entitled to provide health care to the local Polish population. In 1918, he left Kazan and moved to Tomsk, where apart from being active as a physician, he also continued to be involved with the the local Polish community. He created a sanitary-medical ward in the newly organized Polish army in Russia and supported the return of Poles to their country.

In 1919, he declined the position of a full professor at the University in Perma. While in Irkuck, he received a message that he had been appointed professor of internal diseases at the Jagiellonian University in Cracow. In 1920, he finally arrived in Poland, freed after 123 years of occupation, by a ship that transported the soldiers of the Syberian Division. In Cracow, he helped establish the departments of internal diseases, and as head of the medical, surgical, ophthalmic, and gynecological departments, he supervised their administration and further development. Apart from teaching, he also served as head of the department of internal diseases, where the meetings of the local internists were held every month, which would later give rise to the Cracow's section of the Polish

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Society of Internal Medicine. His another great achievement was the organization of the First Polish Tuberculosis Congress and the First Physicians and Council Activists Congress (1925).

In 1925, Professor Orłowski took the position of the professor of diagnostics and internal diseases at the University of Warsaw. In the following years, he managed the First Department of Internal Diseases in the St. Lazarus Hospital in Warsaw, and later the Second Department of Internal Diseases in the Infant Jesus Hospital, where he served as professor of pathology and internal diseases. His activities in the Second Department led to the foundation of research and diagnostic laboratories, the first in Poland metabolic diseases ward, modern biochemical laboratories, serological–bacterial laboratory and clinics of tuberculosis, rheumatic diseases, cardiac diseases with an electrocardiogram office, physical education, urology, and, finally, a clinic for the effect of the ionized mountain air on the human body. Professor Orłowski also taught courses for physicians and supervised the development of the university hospitals. He was also active in scientific societies. Between 1925 and 1929, he was the president of the Polish Society of Internal Medicine and, in 1931, of the Warsaw Medical Society.

During the German occupation, Professor Orłowski continued to run the department, where he organized secret teaching for students and physicians. After the Warsaw Uprising in 1944, he organized hospitals and courses for students in Brwinów and Grodzisk Mazowiecki. After the war, he returned to Warsaw and his former job. In 1948 (the year he retired), he was nominated professor of pathology and internal diseases at the University of Warsaw and became head of the internal diseases ward in the City Hospital number 2 in Leszno. He was appointed for ideological reasons, which were particularly strongly emphasized during the Stalinist era in Poland (1949–1956). After Polish October (1956), Professor Orłowski did not return to the University of Warsaw. He became head of the Fourth Department of Internal Diseases of the Institute of Self-Improvement and Personnel Specialization and head of the internal medicine ward at the Provincial Hospital. He eventually retired in 1961.

During his student years in Petersburg, Professor Orłowski wrote a textbook on internal medicine for students and expanded his knowledge in the field of bacteriology under the supervision of the famous Professor Sergiusz Botkin, and in the physiology of the circulatory and sensory systems under the supervision of Professor Iwan Pawłow. These activities reflect his genuine and passionate interest in medicine.

While in Russia, he was involved in the activities of numerous scientific societies and made significant contributions to introduce clinical scientific and teaching classes. His scientific output includes 207 papers published in Polish, Russian, German, Portuguese, and Spanish. He was primarily interested in cardiovascular diseases, metabolic diseases, and tuberculosis. He also wrote about urinary diseases,

alkalinity of blood, autointoxication in internal diseases, pernicious anemia, and deficiency of barium chloride in heart diseases. Professor Orłowski was also keenly interested in diagnostics. In 1911, he published a paper describing his own diagnostic approach to appendicitis in the *Lviv Medical Weekly*, and a paper on diagnostic evaluation of the pancreas in the *Medical Review*. He was also interested in tuberculosis and he was the first in Russia to have used therapeutic pneumothorax in the treatment of the disease (1912). He also described the so called eclampsia of the pleura that he observed to occur sometimes during the pneumothorax procedure. While in Russia, he also began his research into cholesterolemia, which he continued in Poland. He finally published his results in 1923 in the *Polish Archives of Internal Medicine* (Pol Arch Med Wewn). He later focused on the secretory function of the stomach and the significance of vegetables in patients' diet. He concluded that vegetable juices that triggered the secretion of hydrochloric acid in the stomach should be eliminated from the diet of people with stomach ulcer. In the 1930s, he took interest in the treatment of heart diseases, treatment of tuberculosis with sodium aurothiosulfate, and physiopathology of cardiovascular diseases. In 1930, he claimed that chronic circulatory insufficiency was a systemic disease, thus questioning the Eppinger's theory, which held that changes in the heart were the only cause of this disease.

The department run by Professor Orłowski was devoted to research on chronic circulatory insufficiency. Professor was also a pioneer in pathophysiological and biochemical research on the diagnosis and therapy of internal diseases. He launched studies into the effect of acidosis present in a number of diseases on the human body. He developed an assay to determine blood cholesterol levels. In his publications, he underlined the dynamics of pathological processes that occurred in patients. He also influenced the development of phthisiology and rheumatology. In the 1930s, he developed a classification of rheumatic diseases and published articles on balneological treatment of these diseases as well as on organic determinants of tuberculosis dissemination. In 1937, he was involved in drafting the Polish antituberculosis act.

Considering his pioneer projects and ideas, mainly in the field of holistic approach to health and disease, use of controlled therapy, and critical thinking skills, Professor Orłowski is regarded as the founder of the scientific school of internal medicine. Under his supervision, 33 students earned their PhD degrees, 26 of whom later became professors. He also published a number of didactic books and textbooks for students and medical doctors, including: *The Patterns of Medical History and Laboratory Tests* (1921), *Nutritional Norms in University Hospitals* (1922), *Pathology and Therapy in Internal Diseases* (1933), *The Outline of General Medical Diagnostics*, and finally his famous, multivolume work, *Study of Internal Diseases*.

Witold E. Orłowski was a member of numerous scientific societies both in Poland and abroad. He was awarded the degree of Doctor Honoris

Causa by several universities. In his private life, he was a hardworking, disciplined, and demanding man with exceptional organizational skills. He also showed great attachment to Poland, its culture and traditions. He died on December 2, 1966.

Mściwój Maria Tadeusz Semerau-Siemianowski

Mściwój Maria Tadeusz Semerau-Siemianowski was born on May 19, 1885, in Ruszczuku (now Ruse) in Bulgaria. His father, Władysław, was a physician and descended from Polish nobility. His mother, Józefa (née Rojewska), also came from landed gentry. Mściwój went to school in Saloniki, and later in Poznań and Saverne. After he passed his high school exams, he started studies at the mechanical department of the University of Technology in Charlottenburg near Berlin (1904). In 1908, he asked for a transfer to the medical department in Strasburg. He graduated from the University in 1910 and earned his medical degree in 1911. Between 1911 and 1912, he worked as an assistant at the university hospital of internal diseases in Strasburg, run by Professor Wenckebach. Under his supervision, a young Pole became interested in cardiology. In 1918, he became an assistant professor at the First Department of Internal Diseases in the Holy Spirit Hospital in Warsaw where he introduced a diagnostic method of assessing the function of the circulatory system, including electrocardiography. In 1923, he defended his post-doctoral thesis on the physiopathology of spontaneously beating heart ventricles. In 1924, he became head of the Internal Diseases Ward at the St. Lazarus Hospital in Warsaw. Using his own resources, he organized and equipped the first cardiac ward in Poland. He founded analytical, radiological, electrography, hematological, and metabolic laboratories. In 1929, he obtained the title of professor. As a lecturer, he focused on the topics related to the diagnosis and therapy of circulatory system diseases. In 1935, he gave up lecturing and devoted himself to cardiology. During the German occupation, he worked periodically at the St. Lazarus Hospital. After the Warsaw Uprising, he moved to Zakopane and took the job at the Polish Red Cross clinic. In 1945, he moved to Łódź where he became head of the Internal Diseases Ward at the Hospital in Radogoszcz, which he later transformed into the Second Department of Internal Diseases. He became full professor in 1946 and ran courses and lectures for students of the University of Lodz. Because of poor health caused by polluted air, he decided to move to Gdańsk, where he took the position of full professor and head of the Second Department of Internal Diseases at the Medical Academy. He took care to furnish his department with modern medical equipment. He organized the so called cardiac school to improve the knowledge and skills of physicians and nurses in the field of cardiovascular diseases.

The scientific output of Professor Semerau-Siemianowski includes a hundred of publications in Polish, German, and French. Some of his innovative and pioneering works outran the publications from

all over the world. His scientific interests focused mainly on the physiopathology of the circulatory system, including the mechanisms underlying cardiac rhythm disturbances. He was the first to describe the case of paroxysmal atrial fibrillation (1924) and *hypospixia paroxysmalis*, which is often called after his name in the medical literature. While investigating the clinical symptoms of coronary heart disease, he replaced the Latin expression *angina pectoris*, with the Polish expression *dławica piersiowa*. He is widely recognized for his research into cardiac conduction disorders in rheumatic disease, diphtheria, and atherosclerosis. In the 1930s, he was the first to describe a new disease, the so called constitutional hypotension. He was also the first to introduce physostigmine into heart disease therapy and to observe the effects of various drugs on the autonomous nervous system of the heart. In the 1920s, he described the symptoms, clinical course, pathogenesis, diagnosis, and treatment of hemorrhagic diathesis and the function of the reticular-endothelial system in the pathogenesis, course, and therapy of many diseases. Professor Semerau-Siemianowski was regarded as the founder of modern cardiac school. Its main principles were laid down in the article published in the *Pol Arch Med Wewn* in 1951. He was the initiator and editor of a monograph, *Outline of diagnosing the circulatory system* (1936), and a two-volume textbook, *Internal diseases*, in which he authored the chapter on heart diseases (1959). His efforts led to the release of the first Polish cardiac periodicals in the 1950s, including *Advances in Cardiology* (*Postępy kardiologii*) and *Polish Cardiology* (*Kardiologia Polska*). He popularized the following diagnostic methods in cardiology: roentgen kymography, phonocardiography, sphygmography, and capillaroscopy. In clinical diagnosis, he introduced the practice of percussing the profile of the heart, for which he used a cardiometric laboratory. In 1948, he opened a specialist laboratory at the Second Department of Internal Diseases in Warsaw, where he performed the first cardiac catheterization in Poland.

Professor Semerau-Siemianowski was a member of numerous Polish and international scientific societies. He was the president of the Scientific Board of the Polish Society of Internal Medicine. He was also a member of editorial boards of numerous medical scientific journals. He traveled abroad to conduct scientific research. He was appointed member of the scientific boards of various institutions.

In his private life, he was an enthusiast of mountaineering. He was strongly attached to Poland. During the studies in Germany, he was a member of the Youth Poles Union, and after the first World War, he refused German citizenship in favor of Polish citizenship. During the Second World War, he refused to sign the German People's List (*Volksliste*). He was involved in secret teaching for students, helped Jews in the Warsaw's ghetto, and helped his coworkers wanted by the Gestapo. Both his sons died in the Warsaw Uprising (1944). Professor Semerau-Siemianowski died in Warsaw on June 20, 1953.