

Samuel Goldflam (1852–1932) – promoter of modern neurology and his contribution to urology

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ABSTRACT

The work of Samuel Goldflam is well known among urologists and nephrologists but his name also holds a special significance to the development of several specialist disciplines of modern medicine. A shaking symptom of the lumbar region (Goldflam's sign) described in 1900 is relevant to both urologic and internal medicines. The key importance of Goldflam's sign in the diagnosis of renal and urinary tract diseases emphasizes the outstanding contribution of this Polish researcher to the development of medicine.

The aim of this study is to briefly present the rich *curriculum vitae* and achievements of Samuel Goldflam, the Polish neurologist who changed urology and internal medicine on a worldwide scale.

"Our endeavor is to obtain as many grounds as possible on which to facilitate the recognition of early periods of a disease. This is of great therapeutic importance." (Samuel Goldflam)

CURRICULUM VITAE

Samuel Wulfovich Goldflam was born in Warsaw to a Jewish family of merchants on the 15th of February 1852. Goldflam's entire life was connected with Warsaw, where he attended secondary school city and later studied at the Medical Faculty of the Imperial University of Warsaw (1870-1875). In Warsaw he also began his first job in the 1st Department and Therapeutic Clinic of the Warsaw Imperial University at the Hospital of the Holy Ghost under the management of the Czech physician, Vilem Duszán Lambl, who was famous for his description of the human parasite, *Lamblia intestinalis*. For Goldflam, Warsaw was the place of scientific and social success.

The second half of the 19th century saw the birth of neurology, the specialty chosen by Goldflam. In those days, there were no departments dedicated to neurology or even physicians of this specialty in the territory of Poland (the annexed territories). For these reasons, Goldflam who was fascinated with neurology, decided to leave the country in 1882 in order to train with the most eminent specialists of the time. He completed his first internship at the Berlin Clinic (Charité University), a clinic founded and directed by Carl Friedrich Westphal, who was also a teacher of Herman Oppenheim. His second internship was completed at the world's first neurology clinic, the Paris neurology clinic (Salpêtrière Hospital), directed by Jean Martin Charcot and the first professor of neurology in history, often nicknamed the Napoleon of neurology.

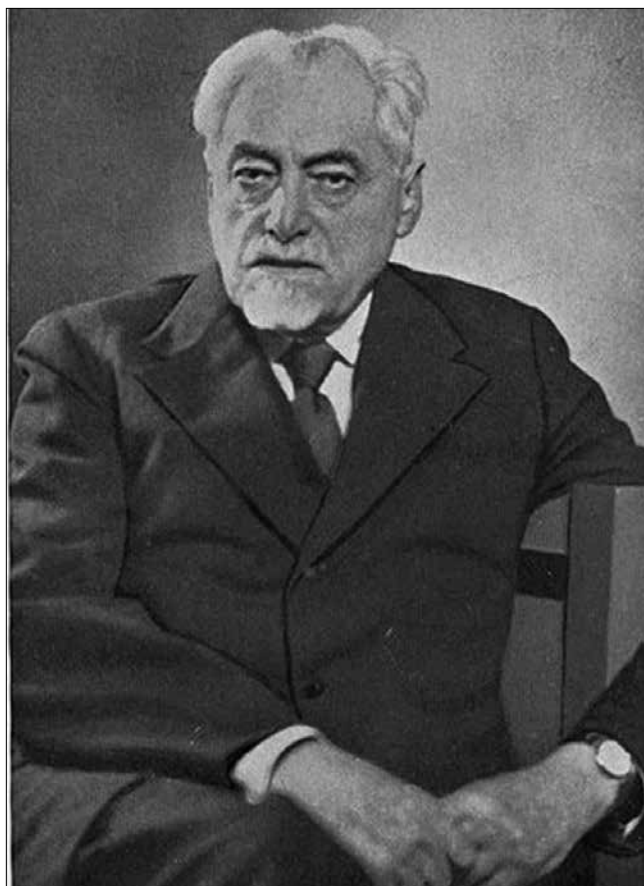


Fig. 1. Samuel Goldflam (from Wikipedia).

During his time in Paris, Goldflam made friends with Józef Babiński, working at the Charcot's Clinic [1]. On his return to Warsaw, Goldflam resumed work at Lambl and, additionally, he opened his own polyclinic at 10 Graniczna Street, in which he treated poor men free of charge for years. According to the descriptions, the polyclinic was made up of a few very modestly furnished rooms to which crowds of patients arrived every day [2]. Goldflam also practiced neurology in hospital conditions. Above all, Goldflam volunteered his services in the Neurological Department of the Orthodox Jewish Hospital at Czyste (1922–1932), directed by Edward Flatau. With no dedicated neurological department in Poland, Goldflam and coworkers became known as the group of "wandering neurologists".

Samuel Goldflam was not only an outstanding diagnostician and physician, but also an observer, researcher, and scientist. The considerable importance of his scientific research for the current state of the art is evidence of his standards. Because of this unique standard, the manner by which research was conducted by Goldflam is of particular note. When he became interested in a given clinical problem, he would walk from one hospital to another over a period of several days in order to observe as many patients as possible. Thus, during his research of reflex semiotics, he visited

several surgical departments where he examined patients who were subjected to general anesthesia, departments for infectious diseases where he examined patients with fever, and pediatric departments where he drew conclusions concerning reflex ontogenesis. He also conducted his observations at night, where it was deemed necessary in order to evaluate the reflexes during sleep. Goldflam used to take notes of all observations made at a patient's bed on pieces of paper or his own cuffs. He sat down in his study in the evening, reviewed the notes from the entire day, sheet by sheet of paper or makeshift note, recording the most essential ones in the documentation [3].

Students of Goldflam, who reflected on his teachings, gave particular emphasis to his open mind and extraordinary powers of observation on a given or associated symptom. Eufemiusz Herman recalls Goldflam with the following words, "he had the mind of a researcher and the soul of an artist" [3]. Samuel Goldflam, who was fully devoted to the service of his patients, did not start a family. He died at the age of 80 in Otwock on the 26th of August 1932 because of a mediastinal tumor. In the same year, three outstanding, world-famous Polish neurologists passed away – Samuel Goldflam, Edward Flatau, and Józef Babiński. Goldflam was buried in the Jewish Cemetery of Warsaw, where other outstanding Polish physicians, such as Prof. Ludwik Maurycy Hirszfeld, Ludwik Zamenhof, and Edward Flatau lay buried. The news of Goldflam's death spread throughout the entire world. Notes and condolences were published in the local press and in professional national and international journals such as the British Medical Journal in the months that followed his death.

Social and Political Activity

Samuel Goldflam was a member of numerous social organizations, taking many initiatives, mainly for the benefit of the Jewish people. His friendship with Janusz Korczak and Ludwik Zamenhof was of particular importance within these social circles. However, the most well-known social activity of Goldflam was the one associated with the Association of Caregivers for Poor Jewish People with Mental Diseases (*Towarzystwo Opieki nad Ubogimi, Nerwowo i Umysłowo Chorymi Żydami*). The association was established in 1906 by Samuel Goldflam, a psychiatrist, Adam Wizel, and a neurologist, Ludwik Bregman. Thanks to the donation of Zofia Endelman, the association purchased 17 hectares (42 acres) of land in Otwock in 1907, on which the Mental Hospital for the Jewish People "Zofiówka" was established between 1907 and 1908. Samuel Goldflam was the chief organizer and the first manager of this hospital and sanatorium. Initially, the clinic had 95 beds, but the addition of the next two buildings in 1910 and 1926 brought the number of beds to nearly 300. A center of this magnitude was not only pioneering in those days, but was also one of the largest neurological-psychiatric centers in Europe. The services provided by the hospital ceased to function as a result of the tragic circumstances of war in 1942. After the war, a psychiatric center opened on the same site and functioned up to the mid-eighties. The neuropsychiatric services were restored in 1985, but after 13 years the hospital was closed indefinitely [4].

Samuel Goldflam was a co-founder and a chairman of the Friends of Children Association (*Towarzystwo Przyjaciół Dzieci*). As a part of his activity, with the collaboration of Anna Braude-Hellerowa, he reopened the Berson and Bauman Families' Children's Hospital, which had previously closed in 1923 due to financial difficulties. The Provincial Hospital for Infectious Diseases of Children of Warsaw was located at this site after the war, and currently serves as a pediatric out-patient clinic.

Samuel Goldflam was also remembered as a man sensitive to the beauty of art, particularly to the arts of music and painting. He was a frequent visitor of the National Philharmonic Orchestra in Warsaw, valuing the music of Beethoven and Wagner the most. Acting in the Jewish Association for Promoting Fine Arts (*Żydowskie Towarzystwo Krzewienia Sztuk Pięknych*), he helped the outstanding Polish pianist, Artur Rubinstejn, in the commencement of his career. In the polyclinic at Graniczna street he gathered a valuable collection of paintings and sculptures. With this fine collection he would organize exhibitions in the tenement house from time to time. At the time of his death, Goldflam bequeathed his art collection and impressive library to the Hebrew University of Jerusalem.

Goldflam also led a rich political life through the responsibilities associated with his membership of the Municipal Board of the town of Warsaw between the years of 1916 and 1919, as a chairman of the Independent Jews Organization, and as a parliamentary candidate to the Legislative Sejm.

Scientific Achievements

We mainly associate Goldflam's academic achievements with the observation and clinical research described in the publication entitled "O wstrząsaniu nerek" ("About Shaking Kidneys"), published in the 'Medycyna' journal in 1900. Goldflam presented therein his findings concerning the significance of the lumbar region's shaking sign for diagnosing primeval glomerular nephritis [5]. In subsequent years this sign, named 'Goldflam's sign' in honor of its discoverer, was also associated with other typical urological conditions, i.e. acute pyelonephritis and renal colic in the course of the urolithiasis.

Despite the fact that Goldflam was a neurologist above all, his research also concerned internal medicine. Apart from glomerulonephritis, Goldflam was also interested in chronic ischemia of the lower limbs. He conducted research on the pathogenesis of intermittent claudication for many years during which another one of his great achievements was the discovery of the diagnostic sign of dorsal foot blanching after repeated and energetic ankle flexions [6]. Moreover, Goldflam's publications are also dedicated to his anatomical and clinical studies of hernia, the use of iodine for Graves-Basedow disease, and his studies of the changes in the skeletal system as a result of malnutrition.

Goldflam's research within the scope of neurology seems to be more distant for urologists and, because of that, their significance may be appreciated less. However, it is impossible not to mention the first documented description of the symptom of muscle power exhaustion, a characteristic for myasthenia, named apocamnosis by Goldflam [7]. Goldflam was also particularly interested in Rossolimo's reflex. On the basis of his research he described the course of the reflex arc, which showed the location of this reflex center – the spinal cord on the level L5-S1 – and put forward a presumption that this reflex ran through the extrapyramidal tracts [8]. In addition, the most significant studies of Goldflam within the scope of neurology concerned diagnostics of posterior spinal sclerosis – the significance of Gordon's symptom and the physiology of pupil and skin reflexes. From a urological point of view it is worthwhile to mention Goldflam's observations concerning removal or weakening of the right abdominal reflex in nephrolithiasis [9].

On Goldflam's and Flatau's initiative, the Scientific Institute of Pathology at Czyste Hospital in Warsaw was established. Goldflam was also an organizer of the Warsaw Medical Association and a co-founder and the first chairman of the Warsaw Neurological Association. He belonged to the group of founders of the Warsaw

Medical Journal – a weekly medical magazine published during interwar years in Warsaw. Regrettably, it is not possible to list all the other associations and organizations of which Samuel Goldflam was a member.

Samuel Goldflam in 2012

The name of Samuel Goldflam is familiar, above all, to physicians. The kidney-shaking symptom in the international science literature is called Goldflam's sign. Moreover, the following should also be mentioned: Goldflam-Oehler sign – blanching of the dorsal foot after repeated and energetic ankle flexions in patients with chronic ischemia of lower limbs; Erb-Goldflam disease – a synonym of myasthenia, a disease the diagnosis and pathology of which Goldflam devoted a significant part of his life.

One should regretfully admit that Warsaw has neglected its memory of Goldflam. Perhaps one reasons for such a *status quo* is the factual lack of memorials to Goldflam in the capital city. The Holy Ghost Hospital (12, Electoral Rd), where Goldflam began his first job, was bombed in September of 1939, and then again destroyed during the Warsaw Uprising. Today, in the building reconstructed in 1953, the Mazovian Centre of Culture and Art is located there and it is not possible to search for traces of Samuel Goldflam's activity. Only the ruins of Otwock's "Zofiówka" (10, Kochanowski Rd) have remained. Even though only 14 years have passed since the hospital closed, all its buildings are significantly devastated, and it has become one of the favorite places of paint-ball enthusiasts, well-known as "psychiatryk" ("asylum"). Although many inscriptions inhabit the building's walls, some citing history, however, none mentioning Samuel Goldflam.

The Orthodox Jewish Hospital at Czyste (17, Kasprzaka Rd) was taken over by Municipal Hospital No. 1 after the war, and in the 1950s the Wolski Hospital was relocated there and is operating to this present day. A neurological department is also operating at this site. Apart from a deep respect for this pioneering and talented physician, there are no material signs of the memory of Samuel Goldflam. The wall of the Provincial Hospital for Contagious Diseases of Children in Warsaw (60, Sienna Rd) does, however, carry a plaque commemorating Anna Braude-Hellerowa, which was unveiled in 2001. Unfortunately, Goldflam's contribution to this establishment was forgotten. Only a monument in Warsaw's Jewish Cemetery (Okopowa Rd, lodging 33, row 1) remains to serve as a remembrance of this great physician, distinguished in the necropolis by its size and cleanness. The residents of Otwock, on the other hand, commemorated Goldflam's activity by naming one of its city streets by his name.

The life and medical and cultural legacy of Goldflam are a topic of many publications. One of great value is a monograph, „*In Memory of Doctor Samuel Goldflam (1852-1932)*”, which was published by the Society of Friends of the Hebrew University in Jerusalem in recognition of his merits for the Jewish community. The profile of Samuel Goldflam permanently belongs to the portrait gallery of the most outstanding and world-famous Polish physicians with special merits.

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