Józef Brudzinski

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Józef Polikarp Brudziński was born on January 26, 1874 in Bolewo near Mława (which in the 19th century was in the Russian Empire) in a noble family with patriotic traditions. He was one of the six children of Feliks Brudziński and Cecylia nee Myślińska. In 1891 Brudziński finished middle school in Warsaw and started to study medicine at Warsaw Imperial University. Due to the high degree of Russification in Warsaw University after the first semester Brudziński (on January 1892) moved to Dorpat (currently Tartu in Estonia) and continued the medical study at the university there. During the study Brudziński got involved with social and patriotic activity in the Polish student association. One of his friends from university mentioned Brudziński in the following words: "he was a great patriot... He was a distinguished character... He was characterized by above-average intelligence, erudition and nobility". In 1894 Brudziński moved to Moscow, where he was noticed by professors for his diligence and brilliance. He also continued his patriotic activity and during his studies in Moscow met Józef Piłsudski – one of the later creators of an independent Poland.

Fot 1.

Brudziński got a medical degree in 1897 and decided to specialize in pediatrics. After graduation he came back for a short stay to Warsaw and started to work at a Jewish Hospital. But in 1898 Brudziński went for a three-year foreign internship. Initially Brudziński went to Cracow (which at that time was in the Austro-Hungarian Empire), where he worked in the Pediatric Clinic under prof. Maciej Jakubowski – the pioneer of the Polish pediatrics. Then Brudziński worked in Graz under prof. Theodor Escherich – discoverer of the bacterium Escherichia coli. At that time, Brudziński was interested in the pathological mechanisms of rubella as well as nutrition and bacteriology in infants. In 1899 Brudziński published his first scientific articles. One of them concerned rubella, and the second – intoxication with resorcinol in infants.

Fot 2.

Fot 3.

In autumn 1899 Brudziński went to Paris and started to work in the most modern pediatric clinic at that time - Necker-Enfants Malades Hospital. In Paris Brudziński also worked at Hospice des Enfanys Assistes and was interested in the activity of the French Pediatric Association. During his internship Brudziński also visited pediatric clinics in London, Berlin, Vienna and Zurich, as well as French maritime spas for children.

Fot 4.

Józef Brudziński came back to Warsaw in 1900 and took a job in Rev. G. P. Baudouin's Foster Care Centre at Warsaw's Infant Jesus Hospital. At that time Brudziński developed his scientific activity. He gave lectures during sessions of Warsaw medical Association, cooperated with "Gazeta Lekarska" – a Polish scientific journal and in the years 1901-1904 published 15 scientific articles.

Fot 5.

Fot 6.

Fot 7.

Fot 8.

In 1903 he received a proposal to take up the position of a general surgeon at the newly built Anna Maria Pediatric Hospital in Lodz. Brudziński again went abroad for a couple of months to know the organization and operating procedures of modern pediatric hospitals in Europe. Brudziński started to work at the newly built hospital in 1905. The official opening of the Anna Maria Pediatric Hospital in Lodz took place on May 16, 1905. It was one of the most modern facilities of this type in Europe composed of pavilions located in a big garden. Rooms for the patients were big and equipped in the central heating system, running hot and cold water and gas lighting. The hospital not long after the opening, thanks to the commitment of Brudziński, became an important scientific center on Polish lands.

Fot 9.

Fot 10.

Fot 11.

Fot 12.

Fot 13.

Fot 14.

During this period Brudziński also actively worked in science. In the years 1906-1909, he published 16 scientific articles. In reports on the activities of the hospital he wrote that "scientific direction of surgical works is one of the aims of the hospital". Moreover, in 1908 Brudziński founded the Pediatric Section of medical Association in Lodz and the first Polish journal of pediatrics, titled "Przegląd Pediatryczny" (Pediatric Review). In 1909, Brudziński received a doctoral degree from the Jagiellonian University in Cracow without any examinations.

Fot 15.

Brudziński worked in Lodz to 1910. In this year he was invited to participate in the design and building of the new modern pediatric hospital in Warsaw from the foundation of Zofia Szlenkierówna – the pioneer of nursing in Poland. Before the move to Warsaw Brudzinski once again went abroad to know the recent trends in pediatrics. The building of the hospital in Warsaw, named after the parents of the founder - Karol and Mary Szlenkier Hospital, started in 1911 and from the beginning it was supervised by Brudziński. On the front of the hospital building Brudziński ordered to be put the motto that guided his life "Salus aegroti suprema lex est". The hospital was opened on November 8, 1913 and Brudziński directed this facility to 1915.

Fot 16.

Fot 17.

Fot 18.

Fot 19.

Fot 20.

During War World I, the Russians pulled out from Warsaw and evacuated the Imperial Warsaw University to Rostov-on-Don. Warsaw was occupied by the German army. German officials allowed to reactive Polish higher education and opened Warsaw University with lectures in Polish. Brudziński got involved in the reactivation of Warsaw University and was elected as the rector on November 2, 1915. In the following year he started lectures with students at the newly created Medical Faculty. At that time he developed patriotic and political activity. He took part in patriotic manifestations and was a member of the Provisional Council of State - the first government of the Kingdom of Poland, a new state created by the military authorities of Germany and Austria. Unfortunately, the hard work impaired the health of Brudziński. He died of nephritis and uremia in Warsaw on December 18, 1917 at the age of only 43 years.

Fot 21.

Fot 22.

Fot 23.

Fot 24.

The rector of the Jagiellonian University Kazimierz Kostanecki said at the funeral of Brudziński: "He went to his creative work as a knight into battle... he went to work with the singing of the soul... he went with Polish fantasy", and students of Warsaw University wrote in Brudziński's obituary: "He built in days of turmoil and despair. He embraced with his ardent heart the Past, Present and Future of the Nation".

Fot 25.

Fot 26.

The scientific achievements of Józef Polikarp Brudziński

Józef Brudziński was not only a pediatrician serving the children who cried for help, but also a scientist, who wrote 55 scientific articles.

The most important studies of Brudziński concerned neurology, namely neurological indications associated with meningitis in children. The first work on this subject (entitled "About contralateral reflex in the lower extremities in children" was published in 1908. Brudziński during his work at Anna Maria Hospital in Lodz observed and described in the article reflex (consisted of the straightening of a paralyzed limb after passive flexion of the contralateral healthy limb) in hemiparesis and meningitis. The next observation concerning symptoms in meningitis Brudziński published in the work entitled "About new symptoms of meningitis in children" in 1909. In this publication Brudziński described a neck sign in meningitis, in which forced flexion of the neck causes a reflex flexion of the hip. In turn in a 1916 the article "About new symptoms of meningitis in children, especially suffering from tuberculosis" was published. In this work Brudziński described two symptoms of meningitis. The first was the cheek sign, in which the pressure on the cheek elicits a reflex rise and flexion of the forearm, and the second was the symphyseal sign consisting in that the pressure on the pubic symphysis elicits reflex flexion of the hip and knee and abduction of the leg. It should be pointed out that Brudziński not only described the above-mentioned reflexes in patients but also studied their exact mechanisms on experiments on animals, that were conducted at the Institute of Physiology at the Jagiellonian University in Cracow under Napoleon Cybulski – the most distinguished Polish physiologist of that time. In modern neurology, four of Brudziński's reflexes (signs) are described: 1) Brudziński's neck sign (with the patient lying on his back and the neck is bent forward, reflective flexion of the knees take place); 2) Brudziński's symphyseal sign (pressure over symphysis pubis leads to knee, hip flexion and leg abduction; 3) Brudziński's cheek phenomenon (pressure beneath the zygomatic bone leads to flexion of the forearm) and 4) Brudziński's reflex (passive flexion of one knee into the abdomen leads to involuntary flexion in the opposite leg, and stretching of a limb that was flexed leads to contralateral extension).

Brudziński also conducted scientific studies concerning the other branches of medicine, including:

- bacteriology of the gastrointestinal tract in children. The works on this subject showed the idea of destruction of pathogenic bacteria by introduction of harmless bacteria into the patient's organism;
- childhood contagious diseases. Brudziński, was one of the first to describe rubella as a separate disease. He also promoted a therapy for scarlet fever using serum
- nutrition of infants and children;
- symptoms during bronchitis and pneumonia in children
- child psychology, especially reasons for suicides in children.