Volchenko S.S.; Smirnova S.K.; Dolgov G.V.

Professor Wilhelm Zangemeister's role in the development of diagnostics of eclampsia

*North-Western State Medical University named after I.I. Mechnikov
(Russia, Saint-Petersburg)*

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Abstract

This article presents biographical information about Wilhelm Karl Zangemeister, german obstetrician, Universität Marburg and Universität Königsberg professor, and a review of his scientific legacy in the diagnostics of hestosis.

Key words: Wilhelm Zangemeister, eclampsia, gestosis, Zangemeister triad

Professor Wilhelm Zangemeister was born on the 7th of April in 1871 in Gotha, Thuringia in Germany, in the family of the philology professor, Karl Zangemeister. Their family moved to Heidelberg in 1873, where was attending gymnasium and university. Being gifted with many abilities, Zangemeister was exceptional in chemistry, physics, math and astronomy, without being disadvantaged spiritually. At the age of 22 Wilhelm Zangemeister received a doctorate and continued his work in the institute of physiology of the University of Heidelberg. Starting from 1896 until 1897 he was an assistant in the Vincenz Czerny's surgical clinic in Heidelberg, in 1897 he volunteered in a women's clinic at the Berlin University with Pobert Michaelis von Olshausen. He served in the military as a medical orderly and then continued to serve as a ship medic in north german Lloyd from 1897 until 1900. Zangemeister spent a period of 1901 till 1903 at a gynecological clinic in Leipzig under the guide of Paul Zweifel. After that he worked as an assistant in the gynecological clinic in Königsberg with Georg Winter.

Pic 1. Wilhelm Karl Zangemeister

His talent for medical science combined with purposeful will, desire to work and liveliness is mind helped Zangemeister quickly move up in his career and leave a meaningful mark in his field.

Wilhelm Zangemeister was habilitated in gynecology and obstetrics and got a right to be employed as a professor in 1904. Until 1910 he was teaching as a privatdozent in the University of Königsberg at the medical faculty and had a private practice.

The spectrum of his scientific interests was wide. Infectious diseases, urology and obstetrics, along with the academic research, were the main directions of his work. Therefore,

in 1906 he published “Atlas der Cystoskopie des Weibes”, in 1907 - the pathological study of a woman, who died of rupture of the uterus.

Pic 2. Image of a frozen frontal incision through the pelvic organs from the W. K. Zangemeister atlas

Zangemeister was especially interested in questions of terms of pregnancy and fetal development. Based on his research, he formulated some postulations about time of conception, and specifically noted the obstetrical meaning of post-term and giant fetuses.

In 1910 (39 years old) he became a professor in the University of Margburg and a director of a women's clinic and school of obstetrics. In 1918 he was appointed as a dean of medical faculty. That allowed to significantly update lessons and operations in the clinics under his control.

Since 1925 he taught in the University of Königsberg at the medical faculty. Zangemeister was an incredibly popular teacher because of his understanding of the educational process and ways of preparing future obstetricians for the medical profession. Many other talented obstetricians came from his school, Peter-Max Ash, who held the position of the professor in 1923-1945 in Munster, is considered as the most important one. Zangemeister published his “The Obstetrics Guide” - the monumental work and the culmination of his career as an obstetrician. Writing this text, Zangemeister completed the task of writing the all-encompassing obstetrics manual, being the only author.

Pic. 3 The classic fundamental work of V.K. Zangemeister for eclampsia

Zangemeister's work regarding the etiology and clinical specifics of neuropathy during the pregnancy proved that it manifests in edema. As a result of a long-term work he proved that edema, arterial hypertension and proteinuria are the key diagnostic criteria for severe forms of hestosis. Those three symptoms are united in so called Zangemeister triad, and such prognostic mark plays an important role in the diagnosis of hestosis to this day. Besides that, he described the pupil phenomena during the eclampsie (narrowing and diluting). As the reason of the eclampsie, Zangemeister suggested the edema of the brain as a part of overall hydropsy. For prophylaxis, he recommended the restriction of consumption of liquid foods and physical work, especially the last three months; in case of expressed hydropsy he recommended bed rest, defined restrictions of salt and water, with regular body weight measurements taken.

On 3rd of February in 1930 Wilhelm Zangemeister unexpectedly died from heart attack. Contemporaries recalled him as a great clinician and scientist, and as an attractive, multi-layered personality, an open and devoted friend.

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Zakharov A.Yu.¹, Dolgov G.V.¹, Shemerovskii K.A.²

Stages of development of the idea of the biological readiness of the female body for childbirth

¹*North-Western State Medical University named after I. I. Mechnikov*

²*Private University «Saint-Petersburg Medico-Social Institute»
(Russia, St. Petersburg)*

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Abstract

The development of the concept of the biological readiness of the female body for childbirth, the "dominant of childbirth", reflects the formation of the definition of the onset of physiological childbirth, which is necessary for the prevention of premature birth and their complications for the mother and fetus.

Key words: biological readiness for childbirth, female body, dominant of childbirth.

The first (empirical) period of determining the readiness of the female body for childbirth was reflected in the first century BC by the ancient Greek physician Soranus of Ephesus, a representative of the methodological school of Asclepiades [2,9]. To determine the term of delivery, Soran Ephessky proposed to evaluate the condition of the cervix — its length, consistency and degree of disclosure by the method of bimanual vaginal examination.