

## LAUDATIO

Professor Antonín Doležal, MUDr., DrSc.  
An Outstanding Prague Obstetrician  
The 75<sup>th</sup> Birthday Anniversary  
(\* January 20, 1929)

---



Richard Plavka M.D., Ph.D.

Department of Obstetrics and Gynecology, 1<sup>st</sup> Faculty of Medicine,  
Charles University of Prague, Czech Republic

As far as an undergraduate, A. Doležal was appointed Head of the Physiological Laboratory of the Institute for Mother and Child in Prague-Podolí. In 1952, by making experiments on guinea-pigs, he worked out the subserous relief hysterography enabling X-ray monitoring of the uterine motility of the unnarcotized animal. After the administration of pituitrin he found “*ascensio partis indivisae*”, and after nociceptive stimulation the uterine motions were in the opposite caudal direction. In 1953 he observed and described the desynchronization of uterine corners, which normally accompanies the births of polytocous animals, one year before discovery of ascending and descendent gradient and different grades of uterine incoordination by Caldeyro Barcia. The theme of his Ph.D. thesis was “*Etiology of Infertility*” and on this subject he published the first Czech monograph.

In 1965 A. Doležal and Š. Figar investigated the *phenomenon of reactive vasodilatation* in pregnancy. During the pregnancy the cold, mild pain, and mental stress lead to vasodilatation instead vasoconstriction and skin blood flow measured by plethysmography is increasing until the end of pregnancy. After relatively short period around the delivery this phenomenon is further present in the confinement (1). The phenomenon is inverted by atropine and scopolamine (2).

At the same time, A. Doležal and S. Tittelbachová prepared and founded a new discipline called “*Anthropology of Maternity*”. They defined the reproductive normality and introduced this term to physical anthropology. The somatic dissimilarities of pregnant women can be better distinguished by this way (3). This work inspired many young doctors to be followed by 28 dissertations in the Department of Anthropology of Charles University.

A. Doležal examined all available methods of painless birth and dealt with abdominal decompression in the first stage of labor. He and V. Hlavatý measured by the way of radioactive isotopes an increase of uterine blood flow in maternal site of placenta during the abdominal decompression. He discovered *the phenomenon of retardation in uterine blood flow minimum* (4).

In 1978 he was successful in defending his D.Sc. thesis on *“Adaptation of Organism and Pregnancy”*. The developmental and theoretical questions were solved in Darwinian conception and wrote the monograph, where introduced key phylogenetic points of human reproduction. In this work he used comparative morphology and physiology and worked out allometric equations of mammals (5).

A. Doležal wrote also a number of special papers from the history of obstetrics, namely on the first Caesarian section in Bohemian lands and on the beginnings of scientific obstetrics in the 18<sup>th</sup> century. In 2001 he published the monograph *“From Midwifery to Obstetrics”*. His deep knowledge of history and medicine was recorded in the novel on “revolution in medicine” on the background of Great French Revolution named *“Pierre de la Ravel, Parisian Obstetrician”*. From the field of philology he wrote a popular book about the origin of vulgar words in Indo-European languages.

At the Department of Obstetrics at the 1<sup>st</sup>. Faculty of Medicine he educated a number of medical students and doctors. All his knowledge and skill were devoted to obstetrics where he set up and improved the methods and techniques of fetus delivery. In Bohemia he performed the first successful abdominal transfusion in rhesus isoimmune hydropic fetus. At the Department of Anthropology at the Faculty of Natural Science in Prague he conducted a series of lectures and supervised a large number of dissertations and theses. From 1990 to 1998 he was lecturing at the Faculty of Philosophy on Darwinism, etiology, ecology, and sociobiologic relations. He has written over 130 scientific papers and has co-operated on a number of textbooks. His lifelong experience is described in the monograph *“Operation Techniques in Obstetrics”*, now revised for its new edition.

A. Doležal took an active part in a number of international scientific symposia and congresses, organized a large number of exhibitions from the history of obstetrics and anthropology of maternity and also co-operated with the National Museum in the preparation of touring exhibitions from the history of medicine. For his professional development of this medical science he has been awarded the medals and honors in the Czech Republic and abroad.

Professor A. Doležal’s lifelong great love has been obstetrics, but his outstanding and brilliant Renaissance personality has influenced and inspired not only his students and colleagues but also people from other branches of education and science who were lucky to meet him.

We salute you, Antonín, as our outstanding Prague obstetrician and teacher.  
Many happy returns, from your friends, fellows and colleagues worldwide!

#### REFERENCES

- 1 Doležal A, Figar Š. The phenomenon of reactive vasodilatation in pregnancy. *Am J Obst and Gyn* 1965; **93**:1137-1145.
- 2 Doležal A, Figar Š, Kocna A. Transportation of the pregnancy reactive vasodilatation after atropine and scopolamine application. *Communications in Behavioral Biology* 1968; **2** (3):128-135.
- 3 Doležal A. Somatic changes in the course and as a consequence of pregnancy. *Acta Univ Carol Med* 1977; **22**:55-111.
- 4 Doležal A, Hlavaty V. Increase in uterine blood flow in the first stage of labor during abdominal decompression as measured with 131 I-HSA. *Am J Obst and Gyn* 1970; **106**(3): 311-312.
- 5 Doležal A. Phylogenetic problems of human reproduction. *Acta Univ Carol Med* 1992, monograph S 244.