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## Water delivery--a 5-year retrospective study

[Article in Czech]

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### Abstract

**OBJECTIVES OF STUDY:** Comparison of chosen parameters of the I.-III. stage of labour by women, who conducted waterbirth (Group A) and by women, who delivered conventionally in horizontal position (Group B) and comparison of perinatal and postnatal results of newborns in both groups.

**DESIGN:** Retrospective study.

**SETTING:** Department of Obstetrics and Gynecology, District Hospital Znojmo.

**METHODS:** Group A constitute 70 women, who delivered in the period 1.1.1998-30.9.2002 into the water (fetus was expelled under water). Control group B formed 70 women, who delivered in a conventional (horizontal position) and in the same time they did not have any contraindication to waterbirth. At first we compared the length of I. and II. stage of labour, the number of episiotomies, the number of some other kinds of injuries, the postpartal uterine hypotony and the volume of blood loss. In the second phase we evaluated clinical condition of the newborn.

**RESULTS:** Waterbirth have chosen 1.95% of the women in our department during this period. There is no statistically significant difference in the duration of I. stage of labour in both groups. The II. stage was prolonged to 9 against 6 minutes in group A, most probably because of hydroanalgetic effect of warm water, due to some inhibition of contractions and "no interference access" to labour. There is no statistical difference in complications during and after the labour in both groups. By group A we found statistically significant higher number of spontaneous, I. grade perineal ruptures, then in group B and we found reciprocal situation in number of episiotomies in both groups. There were no somatic differences by the newborns in both groups after delivery and we did not find higher occurrence of postnatal pathology by the waterbirth babies either.

**CONCLUSION:** Waterbirth is type of alternative obstetrics, which the women in birth demand, but which the obstetricians and neonatologists are afraid of, and which they consider to be possibly hazardous in the same time. There is documented evidence of much less performed episiotomies (nearly of 60%) and higher percentage deliveries without any injury (about of 9%). We did not prove any life or health threatening complication by the women in birth or by their newborns. Newborns from group A have completely comparable peri- and postnatal examination and investigation results with group B. In our study group we did not find higher occurrence of bleeding hypotonic uterus, infections or hypotension by the mother, comparing with the control group. There is often mentioned temporary bluish colour of the newborns by the critics of waterbirth. This appearance we cannot comprehend as a cyanotic demonstration of fetal hypoxia but much more as the consequence of slower transformation from fetal to neonatal blood circulation. The same effect we can observe by the newborns, who were delivered conventionally in horizontal position and who are afterwards longer time connected by umbilical cord. Clear evidence for this contention is completely physiological evaluation and postnatal examination of all newborns by neonatologist after delivery and objective results of ABR and lactate from umbilical artery, which exclude fetal hypoxia too. As the conclusion we can claim, that waterbirth nowadays is one of legitimate methods of alternative obstetrics. The results of our study did confirm that this way of delivery doesnot represent any risk for the mother or the newborn and that there is no reason for an anxiety of obstetrician and neonatologist.

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