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MILKINKG OF UMBILICAL CORD IN PRETERM INFANTS - FEASIBILITY STUDY

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Background and aims: Placental transfusion by delayed cord clamping was shown to be beneficial in preterm infants. Milking is another way, how to achieve it more quickly. Aim of this study was to evaluate feasibility and safety of milking.

Methods: 30 cm cord single milking during 10 sec immediately after labor was performed in 45 preterm infants born between June 2010 and February 2011 at 23 to 32 completed weeks of gestation. As majority of deliveries were cesarean sections, newborns were not positioned below the level of placenta. Retrospective control group consists of 45 gestation age matched infants born 1 year earlier. Haemoglobin values at 1 hour after birth, need of circulatory and respiratory support or transfusion and ICH, sepsis, ROP, NEC, CLD records were evaluated.

Results: The initial mean (SD) haemoglobin value was higher in the milked group (176 (20) g/l) than in controls (162 (27) g/l) $p< 0,01$. There were no haemoglobin values above 220 g/l in milked group. We did not reveal statistically significant differences in the rest of analysis, but there was trend towards less transfusions (21 vs 35) and less ICH (5 vs 11) in milked group. We did not observe any complications of milking.

Conclusion: Umbilical cord milking appears to be effective and safe method. It provides significant red cell transfusion to the newborn. It is quick and applicable in cesarean sections. More studies are needed to assess definitely safety and clinical impact and precise technique of milking.