

DELIVERY ROOM MANAGEMENT

Umbilical Cord Milking Improves Transition in Premature Infants at Birth

Background

There is no information in the latest AHA and ERC newborn resuscitation guidelines regarding the optimal time of cord clamping. ACOG recommended in 2012 that when it comes to premature infants, the cord should be clamped between 30-60 seconds after birth.

Summary of results

Katheria et al. analyzed 20 newborns (≤ 32 weeks of gestation) in which the umbilical cord has been milked (UCM) and 21 newborns in which the umbilical cord has been clamped immediately (ICC) after birth. Significant differences ($p=0.03$) were found regarding maximum FiO_2 used the first 10 minutes of resuscitation, with UCM group of infants receiving less oxygen [40%(21-46) vs. 50%(40-65)]. Median SpO_2 at 1st ($p<0.05$), 2nd ($p<0.05$) and 5th ($p=0.015$) minute of resuscitation and heart rate values ($p<0.05$), ($p<0.05$), ($p=0.03$) respectively, were also higher in UCM newborns. There was a non-significant ($p=0.15$) trend towards a lower mean airway pressure requirement in UCM infants.

Strength

This is the first study to focus on transition outcome of umbilical cord milking vs. immediate cord clamp in preterm newborns.

Limitations

The small (41) number of infants that took part in the study.

Practical conclusion

This study reveals that milking of the umbilical cord in preterm newborns <32 weeks of gestation is beneficial regarding cardiorespiratory outcome in the first minutes of life. Unlike the ACOG recommendation, milking of the umbilical cord has the advantage of no delay regarding the resuscitation starting point. The follow up study that will compare delayed cord clamping and cord milking is eagerly awaited.

Katheria A, Blank D, Rich W, Finer N. Umbilical cord milking improves transition in premature infants at birth. *PLoS One*. 2014 Apr 7;9(4):e94085. doi: 10.1371/journal.pone.0094085. eCollection 2014.

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