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Management of Placental Transfusion to Neonates After Delivery

Ryan McAdams, MD,

Department of Pediatrics, University of Wisconsin School of Medicine and Public Health,
Madison, WI

Satyan Lakshminrusimha, MD FAAP

Department of Pediatrics, UC Davis, Sacramento, CA

In Reply:

We thank Dr. Lerner for his thoughtful comments regarding our article in the January 2022 issue on the management of placental transfusion.(1) We agree that every planned intervention requires an evidence-based risk-benefit analysis. In several trials, delayed cord clamping has been demonstrated to be safe in late-preterm and term neonates. Delayed cord clamping can possibly be associated with a higher use of phototherapy (RR 1.28; 95% CI 0.90–1.82).(2) Routine pre-discharge newborn screening of serum or transcutaneous bilirubin and use of phototherapy, when indicated, is common practice. Delayed cord clamping is not associated with an increased need for exchange transfusion, an intervention recommended for severe hyperbilirubinemia to prevent encephalopathy.

While delayed cord clamping, compared with early cord clamping, is not associated with a reduction in mortality in late-preterm or term neonates, we feel that the potential hematological (higher iron stores) and neurodevelopmental benefits outweigh the possible risk for increased phototherapy for hyperbilirubinemia. In low- and middle-income countries, delayed cord clamping is associated with higher hemoglobin levels and lower incidence of iron deficiency anemia throughout infancy.(3) Analysis of secondary outcomes from a follow-up study of a randomized trial that included low-risk term pregnancies demonstrated that compared with early cord clamping, delayed cord clamping was associated with the higher scores in tests that assessed fine motor and personal-social domains, the processing speed quotient and the bicycle trail task in 4-year-old boys (but not girls).(4) A 12-month follow-up study of term singleton neonates from healthy pregnancies demonstrated that compared with early cord clamping, delayed cord clamping was associated with increased regional white matter brain growth within both the internal capsules, the right parietal, occipital, and prefrontal cortex, without any gender or developmental testing score differences between the two groups.(5) We acknowledge the potential increased risk for needing phototherapy in term neonates, but feel that this risk does not justify foregoing delayed cord clamping in most circumstances, given the potential hematological and neurodevelopmental benefits. We advocate more high quality, long-term,

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follow-up studies in high-risk late-preterm and term neonates to clarify risks and benefits of delayed cord clamping.

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