

Implementation of placental transfusion protocol

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Introduction

The optimal time for umbilical cord clamping is under review. The active management of the third phase of labor implemented in the 60's, includes immediate cord clamping without evidence to support it. Several randomized, controlled trials over the last decade have documented the safety and benefits of delayed cord clamping in term and especially preterm neonates. This led scientific societies (WHO ILCOR) to advise a systematic delay before cord clamping. In developed countries, this recommendation is applicable at least in premature infants (SOCG, ACOG, EAPM). Timing of umbilical cord clamping still varies considerably within units and countries.

In premature births, delayed cord clamping is associated with a more stable transitional circulation, decrease needs for inotropic support and reduce blood transfusions, necrotizing enterocolitis, and intraventricular hemorrhages. Given those benefits this process was integrated systematically in our management of preterm births in October 2013. This study aims to evaluate the implantation of placental transfusion protocol and describe the difficulties in achieving a delayed clamping or milking during the initial phase of this "new" procedure

Patients and Methods

We conducted a prospective trial in a single tertiary care center from November 1st 2013 to April 30th 2014. Very preterm infants (<32 weeks GA) and VLBW were included in the analyze of the implementation of placental transfusion protocol. Exclusion criteria were maternal and fetal vital emergency, Rhesus sensitization, known major congenital abnormalities, tight nuchal cord, meconium teinted liquor, or mother infection by HIV or hepatitis. One procedure was written for C-sections and a second for vaginal births. Obstetricians and midwives were invited to information and simulation sessions.

Results

Forty-nine eligible patients are born within the study periods, with 59% receiving placental transfusion. Placental transfusion was performed in 54% of the C-sections and in 75% of the vaginal deliveries. In C-sections, only cord milking was performed, as per local protocol. Globally the ratio of cord milking to delayed clamping was 3:1.

Placental transfusion wasn't performed in 17 patients: 4 oversights, 6 difficult perinatal adaptations, 2 intrauterine growth restriction and in 5 cases the reason wasn't specified.

No difficulties were reported during the implementation of delayed cord clamping. For the milking, we report a retrograde milking, two tearings of the cord, the milking of an empty cord and the presence of a knot.

Conclusion

A clear protocol for placental transfusion gives the opportunity to improve care of preterm infants. Initial information session and simulation practice for medical and midwives staffs helps with its implementation.. Delayed clamping and cord milking are not difficult after a learning phase like for most new procedures.