BLOOD TRANSFUSION REQUIREMENT IN MULTIPLE BIRTH PRETERM INFANTS

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Background: Delayed umbilical cord clamping (DCC) and cord milking(CM) in preterms < 33 weeks' GA reduces the need for blood transfusions, but is usually recommended for singletons only. Our structured literature search did not reveal data on transfusion requirements for twins and higher multiple births.

Objective: To perform an analysis of transfusion requirements of twins and higher multiple births < 33 weeks' GA treated at our tertiary care unit over 2years.

Design/methods: The study was conducted as retrospective data analysis from infants' notes for blood transfusions. Comparison was done with singletons receiving CM enrolled in a randomised trial during the same time period. All infants received early protein and iron and were transfused according to a restrictive guideline. Statistical analysis was done with Student's t-test for continuous variables and with Fisher's exact test for proportions.

Results: 65 twins (mean birth weight (BW) 1021 g SD 415g; mean GA 28.4 SD 2.5 weeks) were compared with 26 singletons (mean BW 1265g SD 450g; mean GA 29.6weeks SD 2.4weeks). Mean number of blood transfusion was 2.4 SD 3.6 for twins and 0.88 SD 1.55 for singletons (p=0.0028). 38 infants in multiple gestation group (58.5%) and 8 (30.7%) infants in singleton group needed blood transfusion (p=0.02).

Conclusions: Twins required more than double the amount of blood transfusions compared to singletons. This might reflect the positive effect of CM for singletons which causes a placento-fetal transfusion at delivery with stem-cell rich fetal blood. Novel strategies for twins and higher multiple births are required.