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EFFECTIVENESS OF SKIN-TO-SKIN CONTACT STARTING WITHIN 48 HOURS OF BIRTH IN STABLE LOW BIRTH WEIGHT BABIES: A SYSTEMATIC REVIEW.

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Background: Low birth weight (LBW) contributes significantly towards the 4 million neonatal deaths worldwide, accounting for 60-80% of them. Kangaroo Mother Care (KMC) humanizes high tech neonatal care with the mother acting as an 'incubator' and is a low cost intervention capable of reducing mortality and morbidity among these babies. However concrete scientific evidence from earlier systematic reviews has been neither conclusive nor very encouraging. One reason which has not been considered so far could be the impact of two essential variables of KMC which significantly influence the outcome – time of its initiation, and its overall duration. The earlier KMC is started and the longer it is given, the more beneficial it seems to be. The maximum risk of death in LBW babies is in early days of life, and when KMC is started late it may not produce any reduction in neonatal mortality and morbidity as surviving LBW babies would have already overcome this period of maximum risk.

Objectives: To systematically review the effectiveness of KMC starting early in postnatal life (within 48 hours of birth) compared to standard neonatal care in clinically stable LBW or preterm babies. Subgroup analysis planned according to developmental status of country of research.

Methodology: We searched electronic databases to identify relevant controlled trials and comparative observational studies. Standardized methodology was used. Two review authors independently extracted data using a standard form and assessed study quality using GRADE.

Results: The search identified a total of 876 records. Three randomized controlled trials held in countries with different developmental status met the inclusion criteria. Two studies did not receive high methodological quality ratings. Meta-analysis was performed for length of hospital stay. Other recorded outcomes were different from each other or measured in different manner.
KMC was associated with reduction in neonatal mortality in a single study but the evidence was not strong (RR 0.59; 95% CI 0.34 to 1.04). In another study it was shown to be effective in reducing risk of hypothermia, maintaining physiological parameters below a pre-determined range and stabilizing cardio-respiratory status of babies. In the third it helped infants spend more time in a state of alert inactivity and less time crying and in drowsy state. No other difference was statistically significant. No adverse outcome was reported.

Conclusion: There is some evidence from individual trials to suggest that KMC starting within 48 hours of birth in clinically stable LBW is beneficial, but the evidence is not strong. There is a need to conduct high quality multi-centre randomized trials in different settings.

Note: As the review is being updated, the results of the final paper may vary.