Introduction

Kangaroo Mother Care (KMC) is a simple method of care for low birth weight infants that includes early and prolonged skin-to-skin contact with the mother and exclusive and frequent breastfeeding. This natural form of human care introduction stabilizes body temperature, promotes breastfeeding, prevents infection and other morbidities. This also leads to early discharge, better neurodevelopment and encourages bonding between mother and infant (Charpak, N. et al., 1994). KMC is initiated in the hospital and continued at home until the infant needs it and for optimum care a regular follow-up must be ensured. Kangaroo mother care has following components: 1. Skin-to-skin contact 2. Exclusive breast feeding. However, KMC should not be confused with routine skin-to-skin care at birth. World Health Organization (WHO) recommends skin-to-skin care immediately after delivery for every new-born, irrespective of the birth weight to ensure warmth and early initiation of breastfeeding in the delivery room. KMC is meant for stable LBW infants and denotes a sustained, long duration skin-to-skin contact (Charpak, N. et al., 2001).

Evidence of the effectiveness and safety of KMC for clinically stable preterm new-borns, is now formally established. In 2011, an updated Cochrane review assessed 35 studies (Conde-Agudelo, et al., 2003). This review demonstrated even more convincing results than the previous one published in 2008. Compared with conventional neonatal care, KMC was found to reduce: Mortality at discharge and at the latest follow-up, Severe infection/sepsis, nosocomial infections, lower respiratory tract disease, Hypothermia and length of hospital stay.

KMC is associated with reduced incidence of severe illness including pneumonia during infancy. In most of the studies, KMC has been found to be more effective than incubator care for stable new-borns in: providing adequate thermal care, reducing nosocomial infections, improving exclusive breastfeeding and weight gain, and fostering greater maternal and family involvement in care—all at a lower cost than incubator care.

KMC can be provided by mothers, fathers and other adult family members. The KMC provider should be willing, in good health, free from serious illness and should maintain basic standards of hygiene such as hand washing, daily bath, clipped fingernails, tied up hair and clean clothes. It is recommended that jewellery, watches and sacred threads must be removed as they may be a barrier to maintain hygiene and might cause injury to the new-born.

Effective counselling for the initiation of KMC is a prerequisite to overcome socio-cultural barriers and anxiety regarding handling a LBW infant both by the mother and other care providers. When the infant is ready for KMC, the first counselling session should be organized at a time convenient to the mother. The first few sessions are important and require extended interaction to develop a rapport with the mother and to alleviate any fear. KMC procedure should be demonstrated to her explaining correct position in a caring, gentle manner and with patience. Her queries should be answered to allay her anxieties. Encourage her to bring her mother/mother-in-law, husband or any
other member of the family. It helps in building a positive attitude of the family and ensuring family support to the mother which is particularly crucial for post-discharge homebased KMC. It is helpful that the mother and family members starting KMC interact with someone already practicing KMC for her infant (Chwo, M. J. et al., 2002).

Minimum duration of a KMC session should be one hour because frequent handling may be stressful for the infant. The duration of each KMC session should be gradually increased for as long as the mother can comfortably provide KMC. The infants in KMC need to be removed from skin-to-skin contact only for changing diapers and clinical assessment according to hospital schedules.

Feeding and nutrition strategies during the postnatal period are very important for ensuring optimum growth and development of LBW infants. The nutritional needs of infants with similar birth weight may vary depending upon whether the baby is appropriate for gestational age or small for gestational age. Initially, breastfeed is given at fixed intervals of two hours and not on demand, to ensure an adequate and assured minimal intake. The mother should be explained how to breastfeed while the infant is in KMC position. Holding the infant near the breast stimulates milk production. She may express milk while the infant is still in KMC position (Kiran Kumar, B.V. et al., 2002).

There may be special situations where despite the new-born being sick KMC can be given with some precautions. Sick LBW infants: KMC is recommended for stable LBW infants. However, it is beneficial even for sick LBW infants. In such cases kangaroo mother care may be given only under close and constant supervision in centres that are well versed with the practice of KMC. Hemodynamically stable preterm infants on prolonged ventilation or on CPAP can also be given KMC. Treating MO should use her/his judicious discretion on case-to-case basis.

Transport: Ideally, transport incubators with appropriate monitoring equipment are the best method to transport sick infants. However, in case they are not available, the best method to keep a preterm/LBW infant warm during transport after initial stabilisation is by continuous skin-to-skin contact with the mother/family member. If some other family member is not available for KMC or KMC is not initiated: Ensure the baby is kept in warm room 25oC-28oC, adequately covered or if below 1800 grams not able to maintain normal temperature under a warmer (Ramanathan, K. P. et al., 2001).

Close follow-up is a fundamental prerequisite of KMC practice to make a regular assessment of growth, sensory functions, behaviour and neurodevelopment. During the follow-up visits anthropometric measurements (e.g., weight, length, head circumference) of the infant should be recorded to monitor the growth. More frequent visits should be made if the infant is not growing well or if her/his condition demands. ASHA will continue to provide care to the infant under home based new-born care in the community, following discharge. First Follow-up should be at one week, followed by fortnightly follow-ups till next two visits. Additional follow-up visits may be done until s/he reaches 40 weeks of post-conception age or achieves a weight of 2,500 grams. If infant is receiving immunization at a facility where KMC services are available, a follow-up may be ensured.

Infants discharged on KMC should be followed up in the regular follow-up OPD of SNCUs and linkage with District Early Intervention Centre (DEIC) under RBSK for screening of neurodevelopmental morbidities should be established. SNCU discharged infants are to be followed up till one year while LBW infants are to be followed up at home for one year by ASHA as per HBNC guidelines (Sloan, N. L. et al., 1994).

LBW infants are usually fed every 2 hours at least 12 times in a day, the amount of each feed volume (to be given every 2 hour) is calculated on the basis of daily fluid requirements. It is usual clinical practice to provide LBW infants of 1500 grams or more about 60 ml/kg fluids on the first day of life. Infants less than 1,500g are usually given about 80 ml/kg fluids on the first day of life. The feeds/filets are increased by 15 ml/kg/day to a maximum of 150 ml/kg/day by the end of the first week of life. In stable LBW infants who are tolerating feeds well, the feed intake may be raised cautiously and gradually from 150 ml/kg to 180 ml/kg after the first week of life (Tessier, R. et al., 1998).

Most LBW infants lose weight in the first few days of life. Usually this loss would not exceed 10-15% of the birth weight. They regain their birth weight by about 2 weeks and then start gaining weight at the rate of 1.0% to 1.5% of body weight per day. Usually this corresponds to a gain of 15-20 grams per kilogram of their own body weight per day. For small infants below 1,500 grams, it is advisable to use a postnatal growth chart to plot weight every day until they are of 40 weeks PMA or 2500 grams. After that the MCP Card can be used to monitor growth. If the infant has inadequate weight gain, the provider should check the amount of intake, and assess attachment, and splitting / spillage. Nipple and breast problems in the mother should be looked for. Complications such as cold stress, sepsis, oral thrush, anaemia and late metabolic acidosis also lead to sub-optimal growth. The underlying reasons for inadequate weight gain should be addressed.
REFERENCES


