

CHANGES IN AXILLARY AND PERIPHERAL SKIN TEMPERATURE IN LOW BIRTH WEIGHT INFANTS DURING CONVENTIONAL COT CARE AND KANGAROO MOTHER CARE.

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Background: Kangaroo Mother Care (KMC) prevents wide fluctuations in body temperature of the low birth weight baby compared to that seen in Conventional cot care (CCC). Previous studies have measured axillary temperature to monitor the changes in the body temperature of the newborn. However, simultaneous measurement of central and peripheral temperature gives more information about thermal stress experienced by a newborn.

In this pilot study we have continuously monitored and recorded both axillary and foot skin temperature of the baby in Conventional cot care and Kangaroo mother care for one hour. The study is currently being continued on a larger sample.

Objective: To observe the changes in axillary and foot skin temperature during Conventional cot care and Kangaroo Mother Care.

Methods: Ten stable low birth infants without any congenital anomalies who were nursed in pre warmed cot (warmed with electrical bulbs placed under the mattress and the mattress warmed to 30-32°C) were included in the study. Thermister probes were attached securely in the axilla and on the foot and the axillary and foot skin temperatures were monitored for one hour each in pre warmed cot and in Kangaroo Mother Care.

Results: Mean gestational age of infants was 33 ± 3 weeks and mean postnatal day was 9 ± 4 days. Mean weight was 1500 ± 221 grams on the day of monitoring. 4 infants were small for gestational age and 6 infants were adequate for gestational age.

Figure 1 shows changes in temperature during conventional cot care and Figure 2 shows changes in temperature during KMC care. The trends in T_a (axillary skin temperature) and T_f (foot skin temperature) show a smooth upward trend during KMC care while in conventional cot care there were significant fluctuations in the both temperatures with a wider gap ($> 1^\circ\text{C}$) indicating cold stress.

