SUMMARY

The valuable effects of KMC obtained from different studies uptill now urged us to study the possibility of implementation of this technique and compare the results of its implementation versus the traditional artificial incubator care of neonates.

Our study included 120 infant-mother pairs classified into two main groups as follow:

Group 1 (60 infant-mother pairs):

Low birth weight infants who cared for by KMC maneuver, their birth weight ranged from 1500 to 2500 grams. They subdivided into 3 sub group (I a) 20 preterm have Respiratory distress included 11 males and 9 females. The second sub group (I b) included 20 LBW infants have septicemia but stable included 10 males and 10females the third subgroup (I c) included 20 LBW infants only for growing included 10 males and 10 female .

Group 2 (60 infant-mother pairs):

Low birth weight infants who cared for by traditional incubator care.This group included 60 LBW infants who were breastfed or fed other milks. Their birth weight ranged from 1500 to2500 grams. They were subdivided into three subgroup (II a) subgroups. The first subgroup (group II a) included 20 LBW infants who had Respiratory distress included 11 males and 9 females. The second subgroup (group II b) included 20 LBW infants have septicemia but stable included 10 males and 10 females infants had been fed by artificial feeding. . The 3rd subgroup (I c) included 20 LBW infants only for growing and included 10 males and 10 female.

Infants in all groups were matched for gender, birth weight, and gestational age.

The following exclusion criteria were considered for all participants and their families:

1. Infants who had been resuscitated were excluded from the study, but any episodes of apnea or bradycardia in infants who required mild stimulation only were included in the study.
2. Any apparent or symptomatic congenital anomalies.
3. Any intercurrent infections and any other medical disease (physiologically stable infants)
4. Any mothers reported smoking or using drugs during pregnancy.
5. Multiple births.
6. Recent immigrants to avoid drop out defaulters as possible.

All subjects included in the study were subjected to the following:

1. Collection of parents data (including maternal and paternal names, age, education, occupation, socio - economic level, special habits, residence and their phone number).
2. Thorough family history including paternal and maternal illness and history of the previous pregnancies.
3. Thorough maternal antenatal history (with special focus on smoking, infections, drugs and any medical problems occurred during pregnancy).
4. Thorough obstetric history.

5. Resuscitation data including required or not and if required for how long, methods needed (tactile stimulation, oxygen by bag / mask).

6. Initial assessment on admission (including gestational age, time and date of birth, weight, temperature, respiratory rate, heart rate, voiding urine and stool).

7. Complete physical examination with evaluation of neonatal reflexes.

8. The infants were followed up periodically nearly at the same time every 3rd day during admission in the hospital, and weekly after discharge till doubling their birth weight (end point of the study). Each follow up visit included:

a- full clinical examination

b- Measuring the weight using a digital scale which was regularly standerdized.

c- Assessing feeding protocol including type of feeding and it's frequency and amount.

d- Assessing the breastfeeding to ensure correct attachment via observation of the mother position, infant holding, usage of both breasts alternativly and ensure exhaustion of one breast before shifting to the other.

e- Counseling the mother to resolve any problems faced her during feeding or care by KMC.

9. Duration of stay in hospital was recorded to all cases and the age (in days) of occurrence of morbidity or mortality if any.

10. Infants of group (I) were cared for by KMC, while infants of group (II) were cared for by the traditional incubator care.

11. The mothers of all neonates underwent assessment for anxiety using the Beck anxiety Inventory (appendix (I) at 6 wks postpartum this was conducted on a person – to – person basis interview

12. The previously prepared questionnaire (appendix II) was used to assess the knowledge, attitude and practice (KAP) of medical staff (physicians and nurses) towards KMC before and after the implementation of KMC maneouver.

The aim of our study was:

1. Monitoring the effect of implementation of Kangaroo Mother Care (KMC) with that of traditional artificial incubator care of low birth weight infants in the neonatal intensive care as regard the following:

a- weight gain
b- morbidity rates
c- mortality rates
d- length of hospital stay

2. Study the effect of KMC on the anxiety scores of the mothers with low birth weight neonates included in the study.

3. Studying the knowledge, attitude and practice (KAP) of physicians and nurses towards KMC and breast-feeding in NICUs of hospitals included in the study before and after the implementation.

Our results showed a highly significant statistical difference of both age of the end point (doubling of birth weight) and length of hospital stay between group 1 and group II. Also our results showed a highly significant statistical difference of maternal anxiety scores between group I and group II Also our results showed decrease the duration of illness among all studied groups with significant statistical difference between group I and group II.

In addition, our results showed a significant statistical difference in mortality rates but not morbidity rates in-between the groups and subgroups included in the study.

The correlation study resulted in non significant correlation between maternal anxiety scores and birth weight, mortality age, Also, there is highly significant -ve correlation between maternal anxiety scores and gestational age, Length of hospital stay, duration of illness in all studied groups included in the study.,

Lastly, our results showed a statistically highly significant difference of knowledge and attitude towards KMC of medical staff work in NICU of Benha University Hospital {total number = 15 (8 physicians & 7 nurses)} and BENCH {total number =20 (12 physicians & 8 nurses)} before and after implementation of KMC that was statistically significant different as regard the practice ($p<0.05$).