Clinical course and prognosis at one year of corrected age of a cohort of 591 preterm infants ≤1000g at birth, cared in our KMC program between 2002 and 2012.

Patient and design: Prospective cohort of 591 preterm infants (weight at birth ≤1000g) discharged home in kangaroo position (KP) with periodical follow-up until 12 months corrected age to determine survival, growth, development and morbidity. Intervention:1)Continuous KP (skin-to-skin contact 24 hours),2)Exclusive breastfeeding whenever possible and 3)Early discharge in KP with close monitoring and follow-up

Results: 591 eligible infants (≤1001g, at birth) of 12564 LBWI were admitted in our ambulatory KMC program, 89.3% ≤ 30 weeks of GA. Post-natal age at entry was between 1-15 days for 0.3%, 15-30 days for 0.8% and more than 1 month for 98.8% of infants. 77.9% were NICU graduates and 35.0% of them had been ventilated. 83.5% of infants were oxygen-dependent at entry, 40.6% were diagnosed with BPD and 31.3% had intraventricular hemorrhage. 42.2% had history of nosocomial infection at entry. Lost to follow up was 16.0% from entry into KMC to one year of corrected age. Overall mortality in the cohort was 2.9% up to one year, 1.9% of deaths occurring between discharge and 3 months. 43.9% of patients were readmitted at least once. Main causes of readmission before term were anemia (34.2%) and pneumonia (3.7%); main cause of readmission before 3 months was acute respiratory infection (51.2%). 15.2% received exclusive breastfeeding up to term, 11.2% up to three months, and 5.6% up to 6 months. Average weight, length and head circumference were 2569g, 44.4 cm, 33.6 cm at term and 7651g, 69 cm and 44 cm at one year of corrected age. Retinopathy was detected in 34.0%, ophthalmic surgery with laser in 6.6%, and blindness in 0.6%. Diagnosis of cerebral palsy at one year was 7.2%. Mean developmental coefficient at 6 months was 93.1 and at 12 months was 107.1.

Conclusion: Although improved medical care and interventions at the NICUs have increase the survival of extremely low birth weight infants, high rate of complications and disabilities are still a serious concern. High quality follow-up program, with close expert surveillance during first year and beyond as KMCP, is needed to decrease morbidity, and to overcome minor disabilities and mild to moderate neurological impairments that may respond to early intervention. The KMC program is an opportunity for a high risk follow up for these fragile infants in a country like Colombia.

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