Breastfeeding following Kangaroo Mother Care

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It may be difficult for many currently practising physicians to comprehend, but there was a time, within living memory for some doctors, when the accepted obstetric practice following childbirth in the western world was routinely to separate pre-term sick, and full-term infants from their mothers [1]. The move to recognise the importance of physical contact between mother and child was, at least in part, set in motion by the early 1950s by the British psychiatrist and psychoanalyst John Bowlby, who pioneered the study of attachment theory [2-4]. Also during the 1950s, it was reported in sheep and goats that separation of the new-born from the mother, for periods as short as one or two hours, was related to adverse maternal behaviour [5, 6]. In their controlled study, comparing 24 caprine does separated from their new-born kids for one hour, starting within 10 minutes of birth, with 21 caprine non-separated does, Hersher, Moore and Richmond found that two months later the separateddoes were more likely to exhibit rejecting behaviours and to nurse their biological kids less, and the kids of other does more, than was the case for the non-separated does [6]. The results of a further similar caprine study, by Klopfer, Adams and Klopfer, showed that ‘a rapid, imprinting-like process occurs [in goats] during the first few minutes following parturition … immediate separation of kids from their mothers upon parturition for periods as short as 1 hour leads to a rejection of the young by the mother. Five minutes of contact following parturition prevents this rejection’; this supported the previous suggestion by Collias [5, 7].

Based on these non-human mammalian studies, in the early 1970s Kennell and colleagues tested the hypothesis of the existence of a special attachment period in human mothers by comparing two groups of primiparous mothers in the United States: (i) a control group of 14 mothers, in whom the contact between the mother and her full-term new-born was the routine level common in American hospitals at the time, namely ‘a glance at their baby shortly after birth, a short visit at six to 12 hours after birth for identification purposes, and then 20- to 30-minute visits for feeding every four hours during the day’; and (ii) an equally sized extended-contact group, again with mothers of full-term infants, in which, ‘in addition to the contact mentioned above, [the mothers] were given their naked babies in bed with a heat panel … for a period of one hour within the first three hours after birth and were allowed five extra hours with their babies for each of the first three days – a total of 16 hours more than the control group’ [1]. Follow-up at one month showed that mothers in the second group tended to stay at home with their babies, were more likely to pick them up when they cried and spent more time fondling them. At one-year follow-up, mothers in the second group were more pre-occupied with their babies and more likely to soothe in response to crying [1].

A series of studies between 1972 and 1975, published by Peter de Château and his colleagues, showed that skin-to-skin and suckling contact during the first hour after birth was associated with an increased duration of lactation (by a median of 2.5 months), whereas the then-existing Swedish maternity ward routines, such as weighing of the baby before and after he or she was breast-fed, appeared to be associated with a relative inhibition of maternal lactation [8]. Routine care was also associated with infants crying more frequently [9].

Based on the above studies, followed by others including, in particular, the work of Rey and Martinez in the early 1980s in Bogotá, Colombia [10], in 2003 the Department of Reproductive Health and Research of the World Health Organisation published a practical guide to kangaroo mother care, recommending this technique particularly for low-birthweight babies, including those who are pre-term or who have suffered impaired intrauterine growth [11]. There have been numerous studies on the potential benefits of kangaroo mother care, with a recent Cochrane review concluding that, compared with conventional neonatal care, kangaroo mother care in low-birth-weight infants is associated with a reduced risk, in the infants, of mortality, nosocomial infection or sepsis and hypothermia; and increased gain of body mass, body length and head circumference [12]. Another benefit appears to be an increased likelihood of exclusive breastfeeding at discharge or at a postmenstrual age of 40 or 41 weeks [12]. In this issue of Reviews on Recent Clinical Trials, Ghojazadeh, Hajebrahimi, Pournaghi-Azar, Mohseni, Derakhshani and Azami-Aghdash address the issue of the time of initiation of such breastfeeding. They describe a systematic review and meta-analysis of 20 published comparative studies, involving 2,842 neonates, of whom 1,432 received kangaroo mother care and the remaining 1,410 received conventional neonatal care. Overall, this important systematic review paper
shows that kangaroo mother care is associated with earlier initiation of breastfeeding. However, it should be noted that the authors found evidence of publication bias and of studies which were un-blinded and not always randomised.

REFERENCES

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