

NEURODEVELOPMENT

A randomised trial of continuous skin-to-skin contact after preterm birth and the effects on salivary cortisol, parental stress, depression, and breastfeeding

Background

Preterm infants in neonatal intensive care are exposed to several stressful interventions every day and commonly separated from the mother. It is known from animal studies that this separation leads to an increased sensitiveness to stress in infants. Data from questionnaire studies show that mothers separated from their newborn infants often describe the separation as a major stressor.

Evalotte Mörelius, Annika Örténstrand and coworkers aimed to evaluate the effects of almost continuous skin-to-skin contact (SSC) on salivary cortisol, parental stress, parental depression, and breastfeeding in a randomised trial.

Summary of results

Thirty-seven families from two different neonatal care units in Sweden, randomised to either almost continuous SSC or standard care (SC) were included. Infants randomised to SSC had a lower salivary cortisol reactivity at one month. There was a correlation between the mothers' and the preterm infants' salivary cortisol levels at four months in the SSC group, but not in the SC group. Fathers in SSC scored lower on scales regarding relationship problems compared to fathers in SC.

Strength

This randomised study is the first to report results after continuous SSC for one week in a high-technology setting.

Limitations

The authors state, that it would be beneficial to include fathers more in future studies, especially in order to investigate the salivary cortisol concordance between the infant and the father, compared to the concordance between the infant and the mother.

Practical conclusion

Early life factors, such as almost continuous SSC, can affect the development of the hypothalamus–pituitary–adrenal axis. SSC improved the concordance between mothers' and infants' salivary cortisol levels, which could be a sign of a more rapid development of regularity. Additionally SSC seems to facilitate spouse relationship of parents.

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