Karolinska Institutet

Institutionen för Kvinnors och Barns Hälsa

The Swedish Birth Seat Trial

AKADEMISK AVHANDLING
som för avläggande av medicine doktorsexamen vid Karolinska Institutet offentligen försvaras i Skandiasalen, Astrid Lindgrens Barnsjukhus plan 1, Karolinska sjukhuset.

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Abstract

Background: Evidence for the safety of upright birth positions in relation to maternal blood loss and perineal outcomes is inconclusive. Little is known about the impact of upright positions on the use of synthetic oxytocin for augmentation of labour or whether an upright birth position in the second stage of labour can reduce the number of instrumental vaginal deliveries. In addition women's preferences for and experiences of birth positions in the second stage of labour require investigation.

Aims: to investigate the efficacy of the use of a birth seat in relation to maternal and infant outcomes, and to investigate women's experiences of birth position in the second stage of labour.

Methods: in a randomised controlled trial maternal and infant outcomes were investigated when first time mothers were allocated either to an experimental group (birth seat) or to a control group (any position except for the birth seat). Analysis was according to the intention to treat principal in paper **I & II** (n = 1002). Outcomes were analysed according the on-treatment analysis in paper **III** (n = 950). A follow-up study was carried out using a questionnaire and answers from 289 women who were allocated to the experimental group were included (**IV**).

Results: Birth on the birth seat resulted in a shorter second stage of labour and in less use of synthetic oxytocin for augmentation of labour, but did not reduce the number of instrumental vaginal deliveries (**I-III**). There was an increased risk for post-partum blood loss in women who gave birth on the birth seat and also in women who were given synthetic oxytocin during the first stage, regardless of birth position (**I & III**). There were no differences in any degrees of perineal lacerations (**I & III**) and women who gave birth on a birth seat were less likely to have an episiotomy performed (III). There was no increased risk for perineal oedema in the birth seat group (**I & III**). No adverse infant outcomes were identified (**II**). Despite randomisation, women who gave birth on the birth seat reported to a higher degree that they themselves had made the decision about birth position and felt that they had been given the opportunity to take their preferred position. Women who gave birth on the birth seat reported more often that they felt powerful, protected and self-confident (**IV**).

Conclusions: Birth on the birth seat reduced the duration of the second stage of labour. The number of instrumental vaginal births was not reduced. There were no adverse infant or maternal outcomes except for an increased blood loss in women who gave birth on the birth seat; this finding was without affecting the haemoglobin level 8-12 weeks postpartum. An upright birth position, when chosen by the woman, could give a feeling of empowerment, which leads to greater childbirth satisfaction. An upright position during the second stage of labour, facilitated by a birth seat, can be recommended as a non-medical intervention to healthy nulliparous women.