

Avvaktande eller aktiv handläggning vid långsam förlossningsprogress hos friska förstföderskor

- En studie om riskfaktorer, obstetriskt utfall och förlossningsupplevelse

Akademisk avhandling

som för avläggande av filosofie doktorsexamen vid Sahlgrenska akademien vid Göteborgs universitet kommer att offentligen försvaras i hörsal 2118, Arvid Wallgrens Backe 2, Hus 2 fredagen den 12 november 2010 kl. 09.00

av

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This thesis is based on the following papers:

- I Dencker A, Berg M, Bergqvist L, Ladfors L, Thorsén L, Lilja H. (2009). Early versus delayed oxytocin augmentation in nulliparous women with prolonged labour - a randomised controlled trial.
Bjog 116(4): 530-6
- II Dencker A, Berg M, Bergqvist L, Lilja H. (2010). Identification of latent phase factors associated with active labor duration in low-risk nulliparous women with spontaneous contractions.
Acta Obstet Gynecol Scand 89(8): 1034-39
- III Dencker A, Taft C, Bergqvist L, Lilja H, Berg M. Women's experiences of the first childbirth: development and evaluation of a Swedish questionnaire. *Submitted*
- IV Bergqvist L*, Dencker A*, Taft C, Lilja H, Ladfors L, Skaring-Thorsén L, Berg M. Women's experiences after early versus postponed oxytocin treatment of slow progress in first childbirth - a randomised controlled trial. *Manuskript*
* Båda författarna har bidragit lika mycket

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Slow labour in first childbirth: Risk factors, obstetric outcomes and women's experiences after expectant versus early oxytocin augmentation

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ABSTRACT

Slow labour progress is common in nulliparous women and is associated with childbirth complications and negative birth experiences. Oxytocin augmentation is widely used to treat slow labour despite associated risks for the fetus. An ongoing debate concerns whether oxytocin should be administered directly or postponed after arrested labour. The overall aim of this thesis was to study labour progress in healthy nulliparous women and to compare childbirth outcomes and experiences in women randomised to expectant versus early oxytocin augmentation for slow labour progress.

Objectives. The four studies comprising this thesis are based on a randomised controlled study where nulliparous women with a normal pregnancy, spontaneous onset of active labor at term, and a cervical dilatation of 4 – 9 centimetres on admission to the delivery ward were included (n=2,072). All women whose labour did not progress after amniotomy (n=630) were randomly allocated either to labour augmentation by oxytocin infusion (Early oxytocin, n=314) or to postponement of oxytocin augmentation for another three hours (Expectant, n=316). Study I examined if mode of delivery differed between treatment groups. Study II was conducted to identify independent predictors of active labour duration. Study III described the development and validation of a questionnaire to assess women's experiences of childbirth. In Study IV, the questionnaire was used to assess and compare childbirth experiences one month postpartum in early vs expectant treatment.

Results. Study I showed that rates of spontaneous vaginal births, instrumental vaginal or caesarean births did not differ between early and expectant oxytocin augmentation. Study II identified independent predictors of extended labor duration (controlling for known predictors): a long latent phase, few hours of rest and sleep without normal food intake during the preceding 24 hours and low levels of labour pain. In Study III, factor analysis of the 22 item postpartum questionnaire yielded four factors; *Own capacity*, *Professional support*, *Perceived safety*, and *Participation*, accounting for 54% of the variance. The questionnaire showed good reliability and sensitivity. Study IV revealed no significant differences between early vs. expectant treatment in any of the four domains; however, operative births (caesarean and instrumental vaginal births) were associated with significantly worse childbirth experiences. Nearly one-third of the women in both groups had negative and depressing memories from labour.

Conclusions. Early oxytocin augmentation for slow labour progress does not appear to be more beneficial than expectant management regarding mode of delivery and women's perceptions of childbirth one month postpartum. Given the risks for the fetus associated with oxytocin treatment, prudent expectant management seems to be a safe and viable alternative. As negative experiences of first childbirth are known to influence mothers' decisions about future pregnancies and mode of delivery, it is vital that childbirth experiences be comprehensively assessed. The assessment instrument developed here may be adequate for this purpose. More research is needed to isolate factors contributing to negative childbirth experiences and to improve methods for identifying women with such experiences.

Keywords. Randomised controlled trial, nulliparous women, slow labour progress, prolonged labour, oxytocin augmentation, operative delivery, risk factors, labour duration, multiple regression analysis, childbirth questionnaire, factor analysis, childbirth experience