

Third stage of labour
- studies on management, blood loss and pain
in Angola and Sweden

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Elisabeth Jangsten

Opponent:

Docent Ingegerd Hildingsson, Mittuniversitetet, Sundsvall

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- I Strand R, da Silva F, Jangsten E, Bergström S. Postpartum haemorrhage: a prospective, comparative study in Angola using a new disposable device for oxytocin administration. *Acta Obstet Gynecol Scand* 2005; 84: 260–265.
- II. Jangsten E, Strand R, da Glória de Freitas E, Hellström A-L, Johansson A, Bergström S. Women's perceptions of pain and discomfort after childbirth in Angola. *African Journal of Reproductive Health* Vol. 9 No.3 December 2005.
- III. Jangsten E, Hellström A-L, Berg M. Management of the third stage of labour-focus group discussions with Swedish midwives. *Midwifery* (2009), doi:10.1016/j.midw.2008.12.004
- IV. Jangsten E, Mattsson LÅ, Lyckestam I, Hellström AL, Berg M. A comparison of active and expectant management of the third stage of labour – a Swedish randomised controlled trial. Accepted for publication in *BJOG*.
- V. Jangsten E, Bergh I, Mattsson LÅ, Hellström AL, Berg M. Afterpains - a comparison between active and expectant management of the third stage of labour. In manuscript.



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Elisabeth Jangsten, Institute of health and Care Sciences
Sahlgrenska Academy at the University of Gothenburg

ABSTRACT

Management of the third stage of labour and risk factors for blood loss have been the focus of investigation for a long time. The overall aim of this thesis was to investigate management of the third stage of labour and its influence on blood loss and women's experience of afterpains in both a low- and a high-income country, as well as midwives' experience of managing this stage. The studies were performed in hospital-based settings in Angola and Sweden.

The first two studies (Papers I and II) were performed at the University Hospital in Luanda, the capital of Angola. Blood lost during the third stage of labour was collected and measured up to two hours post partum. In a prospective, comparative study, 782 parturients handled with expectant management of the third stage of labour (EMTSL) were compared to 814 parturients handled with active management of the third stage of labour (AMTSL). The latter were given 10 IU oxytocin with the Uniject™, a disposable injection device. Post partum haemorrhage (PPH) (≥ 500 mL) occurred in 40.4% and severe PPH (≥ 1000 mL) occurred in 7.5% before introduction of AMTSL. These figures declined to 8.2% and to 1%, respectively, after the introduction of AMTSL (Paper I).

The occurrence of afterpains and discomfort was compared in 51 expectantly managed and 51 actively managed women. Verbal Rating Scale (VRS) responses to semi-structured questions showed that AMTSL did not cause significantly more afterpains (Paper II).

In the third study, experienced midwives in Sweden participated in focus group discussions concerning their experiences of the management of the third stage of labour. The midwives exhibited self-confidence in evaluating the physiological process and endeavoured to leave it undisturbed if no risks were apparent, thus questioning the recommendation that AMTSL be implemented in all healthy women with normal deliveries in high-income countries. Their decision-making concerning management was based on a combination of previous experience, hospital guidelines, risk assessment and sensitivity to each woman's needs (Paper III).

A randomised controlled trial (RCT) was conducted at two delivery units in a university hospital in Sweden (Papers IV and V). Women were randomised to either AMTSL (n=903) or EMTSL (n=899). The blood lost was collected and measured at the time of delivery and up to two hours post partum. The mean blood loss was less in actively managed women. Blood loss >1000 mL occurred in 10% of AMTSL and 16.8% of EMTSL, although the number of blood transfusions did not differ between the two groups (Paper IV).

Afterpains were assessed at four occasions: twice at two hours after delivery and twice the day after delivery. The intensity of the afterpains was assessed with the Visual Analogue Scale (VAS) and the Pain-o-Meter with Word Descriptors (POM-WDS) was used for describing afterpains. A significant difference in experience of afterpains was detected between the two groups and multiparas scored higher than primiparas, irrespective of management (Paper V).

This thesis demonstrates that AMTSL is related to significantly less blood loss and does not aggravate afterpains. Furthermore, nulliparous women have a higher risk for PPH. This supports the standpoint that AMTSL is appropriate for women giving birth vaginally in hospital settings, both in Angola and Sweden, i.e. in both low- and high-income settings.

Keywords: third stage of labour, active management of the third stage of labour, AMTSL, expectant management of the third stage of labour, EMTSL, postpartum haemorrhage, maternal mortality, oxytocin, uterine contractions, Labour pain