

Delayed Cord Clamping

The December 2012 issue of the MSCC's newsletter featured an article on the review by obstetrician David Hutchon on the dangers of early cord clamping. The paper was published online in the November 2012 issue of the *Journal of Obstetrics and Gynaecology*. (1) Since then the MSCC has learned that Dr Hutchon worked for a while as an obstetrician at Greymouth Hospital where he was held in high regard. He may have retired now, but he is not alone in his stance on premature cord clamping.

The UK

The issue of leaving the cord for 2 – 3 minutes before clamping and cutting it, or leaving it until it has stopped pulsating has become a major issue in the UK, with midwives, obstetricians and paediatricians joining the movement to change the practice around cord clamping. Childbirth experts are urging the National Health Service (NHS) to reverse its policy on premature cord clamping, and medical bodies, senior doctors and the National Childbirth Trust are calling for maternity care providers to stop routinely clamping the cord within seconds of the baby's birth. (2) They argue that there is now good evidence that newborn babies are at risk of developing iron-deficiency anaemic as a result of being deprived of 25 – 33% of their blood volume at birth. (3)(4) Anaemia is associated with brain development, and iron deficiency even without anaemia has been associated with impaired development among infants. About 10% of UK toddlers are iron-deficient, and both iron deficiency and iron deficiency anaemia are major public health problems in young children worldwide. (2)(3)

The scientific evidence inspired the Royal College of Midwives and the Royal College of Obstetricians to change their guidelines in November 2012 recommending delaying clamping of the cord for around three minutes after birth.

The USA

In the USA obstetrician Dr Nicholas Fogelson found himself in the unenviable position of being anointed as the guru of delayed cord clamping after he penned a post in 2009 entitled "Delayed Cord Clamping Should be Standard Practice in Obstetrics." (5) Later he gave a grand round on the topic. (6) Both were viewed by thousands and while he acknowledged that he had "contributed to a growing movement towards delaying cord clamping after the birth of preterm and term neonates," he subsequently posted another article denying that he was an expert in delayed cord clamping, describing himself as, among other things, a physician with intellectual expertise in maternal health and first hand experience in its practice, a position which gave him a platform for his opinion. (7)

In his December 2011 article Nicholas Fogelson wrote:

"Delayed cord clamping is more akin to the natural process of birth that we have evolved towards, and to the birth process shared by all land mammals. Immediate cord clamping clearly reduces the amount of blood in the infant in terms of volume, blood cells, and iron content. In my mind, this action removes blood from the infant that the infant was "destined" to receive absent the intervention of immediate cord clamping." He goes on to point out that "there is no real data to suggest that delayed

cord clamping is at all harmful to an infant. For that reason, the combination of the underlying physiologic and rational argument with the available data is compelling enough to me to support a policy of routine delayed cord clamping for term and preterm neonates.” (7)

New Zealand

In New Zealand midwives and obstetricians have been less than enthusiastic in terms of changing their practice around cord clamping and the active management of the third stage of labour – the time between the birth of the baby and the separation and birth of the placenta. Active management which involves the mother being given an injection in her thigh of artificial oxytocin, the baby’s umbilical cord being clamped and cut within a minute or so of the birth, and the cord being pulled to help deliver the placenta, is the norm in the vast majority of births in New Zealand.

The National Women’s Annual Clinical report for 2011 states “In 2011, active management of third stage was used in at least 90% of vaginal births.” (8)

The Midwifery and Maternity Providers Organisation (MMPO) statistics for 2011 revealed that the percentage of active management for the 52% of the births in New Zealand that are included in the MMPO statistics was 70.6%. (9)

There is little reason to hope that the reports for 2012 will reveal much change in these statistics.

Postpartum haemorrhage

In her *Nutrition Reviews* paper, Camila Chaparro wrote “because of the past inclusion of early cord clamping as part of the protocol for active management of the third stage of labour to prevent postpartum haemorrhage – a set of procedures promoted during the last two decades for the prevention of maternal postpartum haemorrhage – a belief commonly exists among practitioners that delayed cord clamping will increase maternal bleeding. However, there is no evidence to support a relationship between cord clamping time (independent of other active management techniques) and postpartum haemorrhage.” (4)

Jaundice

There is also no evidence to support the relationship between delayed cord clamping and hyperbilirubinaemia, commonly known as jaundice. Ola Andersson’s paper, in reporting that delayed cord clamping improved iron status and reduced the prevalence of iron deficiency at four months of age, and reduced prevalence of neonatal anaemia, also reported that delayed cord clamping did not result in postnatal respiratory symptoms, polycythaemia (too many red blood cells), or hyperbilirubinaemia requiring phototherapy. (3)

Resuscitation

In describing the drivers that are preventing widespread adoption of delayed cord clamping David Hutchon lists cord blood gases, resuscitation, nuchal cord, cord blood banking and the need for neonatal blood group in rhesus negative mother. For babies requiring resuscitation, he noted that “current practice is to transfer the baby immediately and this requires cord clamping. There is however, increasing opinion and evidence that maintaining a placental circulation in these babies will aid recovery

... Initiation of resuscitation is possible at the side of the mother without clamping the cord.” (1)

Cord blood banking

David Hutchon also commented that delayed cord clamping results in much smaller volumes for cord blood collection and that after a physiological transition there is rarely sufficient for stem cell banking. Cord blood banks “will therefore need to consider other methods to harvest the billions of stem cells left in the placenta if life-saving use of the cells is to continue.” (1)

An experienced and enthusiastic UK midwife has posted an article recording her practice as a “vampire-midwife” and the prize she won for collecting the most cord blood in the hospital where she worked. She describes her post, “Confessions of a vampire-midwife,” on midwifethinking.com as “a small attempt to repent for my sins.” (10) See following article for more on this issue.

WHO recommendations

A recent review of physiological versus active management of the third stage of labour in the Cochrane Library stated that the current World Health Organisation (WHO) recommendations are to delay cord clamping as it is no longer considered best practice. (11)(12)

Mothers

Lastly, but most importantly, mothers are also involved in the movement to make delayed cord clamping routine practice. There are many wonderful informative, evidence-based websites that discuss the many advantages to babies and mothers of not interfering with the natural process immediately after birth. The *Scienceofmom* is one such website. (13) There is also a website devoted to the issue (14) as well as many others. (15)

The demand for change is growing and it is critical that New Zealand mothers join forces to protect their babies from being deprived at birth from what nature intended them to have – their full quota of blood.

References

1. DRJ Hutchon. “Immediate or early cord clamping vs delayed clamping.” *Journal of Obstetrics and Gynaecology*. November 2012; 32:724-729.
2. <http://www.guardian.co.uk/society/2013/apr/25/cutting-cord-babies-risk-nhs>
3. Ola Andersson et al. “Effect of delayed versus early umbilical cord clamping on neonatal outcomes and iron status at 4 months: a randomised controlled trial. *British Medical Journal* 2011;343:d7157 doi.
4. Camila M Chaparro. “Timing of umbilical cord clamping: effect on iron endowment of the newborn and later iron status.” *Nutrition Reviews* 2011 Volume 69(Suppl.1):530-536.
5. <http://academicobgyn.com/2009/12/03/delayed-cord-clamping-should-be-standard-practice-in-obstetrics/>
6. <http://www.youtube.com/watch?v=cX-zD8jKne0> and <http://www.youtube.com/watch?v=YDLywaBTd-o>
7. <http://academicobgyn.com/2011/12/14/an-update-on-delayed-cord-clamping-and-thoughts-on-internet-expertise/>
8. National Women’s Annual Clinical Report 2011, page 102.
9. Email to the MSCC dated 28 November 2012.

10. <http://midwifethinking.com/2011/02/10/cord-blood-collection-confessions-of-a-vampire-midwife/>
11. CM Begley et al. "Active versus expectant management for women in the third stage of labour" (Review) Cochrane Library. 2011. Issue 11
12. http://apps.who.int/rhl/pregnancy_childbirth/childbirth/3rd_stage/cd004074_abalose_com/en/
13. <http://scienceofmom.com/2012/10/11/why-consider-delayed-cord-clamping/>
14. <http://cord-clamping.com/>

<http://www.thebirthpause.com/2013/02/optimal-cord-clamping-all-of-human.html>