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Routine vaginal examination to check for a nuchal cord

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Routine Vaginal Examination: to check for a nuchal cord.

Abstract.

Background

Many midwives routinely perform a vaginal examination during birth to check for the cord around the baby’s neck (nuchal cord). Such an invasive procedure would only be consistent with midwifery philosophy if it was common to find a nuchal cord so tight that the only alternative is to cut in order to allow the birth of the baby. A tight nuchal cord, however, seems to be rare.

Question

How did it happen that the invasive procedure of vaginally checking for the nuchal cord became a ritualised practice in contemporary midwifery?

Method

We review the historical literature, back to antiquity, about the significance of finding a nuchal cord.

Findings

Checking for the nuchal cord has been advocated by medical textbooks from antiquity. The call to make this procedure routine for all women was not made in medical texts until the late 17th century onwards. Through an exploration of the historical origins of the procedure we demonstrate that the arguments used act as a model for the way in which all aspects of birth were medicalised through fear.

We hypothesise that when the midwife avoids routine invasive checking for the cord and instead makes individual clinical decisions for each particular woman and baby this may be a marker of her willingness to practise as an autonomous decision maker and not just of follower of ritual.
Key Words

- Nuchal Cord;
- History;
- Rituals;
- Women;
- Birth;
- Medicalisation
Background
The nuchal cord is defined as “…the coiling of an umbilical cord around the neck” {Schorn et al., 1991}. A tight nuchal cord at birth is rare {Mercer et al., 2007}. There is very limited reliable evidence of neonatal morbidity and/or mortality associated with a tight nuchal cord at birth {Nelson & Grether, 1998}. Consequently, several authors hypothesise “nuchal cords ordinarily do no harm” {Cunningham et al., 2005; Schorn et al., 1991; Steinfield et al., 1992}. The negative effects of premature cord clamping for the infant include: shock, hypotension, anemia and death {Iffy & Varadi, 1994; Mercer et al., 2004 & 2005}. Cerebral palsy has been positively co-related with early cord clamping for nuchal cord; particularly if shoulder dystocia ensues {Flamm, 1999}.

Checking for the cord means that, during second stage of labour a vaginal examination is performed, usually without the woman’s consent {Coldicott et al., 2003; Lewin et al., 2005}. The focus of this paper is on contemporary recommendations for the attending midwife supporting a woman to birth a singleton baby when there has been no experience of fetal distress up to the time the head is born but the shoulders are still unborn. Further we explore the history of how the intrusive procedure of checking for the nuchal cord became ritualised in midwifery practice and its implications for midwifery practice today.

A search of Pubmed, CINAHL, Medline, Cochrane and Joanne Briggs was conducted. The search showed that no randomised control trials have been conducted concerning the effectiveness of checking for the nuchal cord compared with waiting until events unfold. Thus there is a general consensus nuchal cords at birth generally cause no harm. As a result there is no high level evidence to support routine checking for the nuchal cord.

The word ritual pertains to a cultural practice. A ritual is “…a custom, a common practice or habit” of a group of people; in this case, midwives {Onions, 1973 p1837}. Contemporary midwifery practice is defined as a partnership between the woman and the midwife where knowledge and power are shared {Guilliland & Pairman, 1995}. The midwifery partnership...
model of midwifery practice is based on mutual trust and respect between the midwife and woman (Kitzinger, 2005). The woman is the decision-maker in her own care; the midwife’s role includes providing information that is relevant to decision-making (Leap & Pairman, 2006). Non-intervention in normal physiological birth is a hallmark of contemporary models of midwifery care. Only interventions that are really needed and known to be beneficial are performed by midwives who are guardians of normal birth (Fahy et al, 2008). In contrast to the espouse philosophy of contemporary midwifery, however, many midwifery authors, continue to recommend routinely performing a vaginal examination to check for the nuchal cord. These authors are influential in shaping midwifery education and practice including; Varney; Walsh and Sinclair as well the Joanna Briggs Institute Midwifery Practice Manual (Varney, 1987; Walsh, 2001; Sinclair, 2004; Institute, 2006).

There is some suggestion in the literature that routine vaginal examination during second stage labour is commonly practised in the US, the UK and Australian maternity units (Jefford et al, 2009). In many cases the woman is unprepared for this vaginal examination, which is often performed without the woman’s informed consent (Coldicott et al, 2003; Lewin et al, 2005). Many women perceive vaginal examinations as painful, distressing and at times traumatic and the most unpleasant aspect of their pregnancy (RCOG, 2002; Wickham, 2003). For some women routine vaginal examinations have negative implications for her parenting abilities, her sex life or even whether she wants more children (Beech, 2000). Vaginal examinations are particularly pertinent in those women who have a history of sexual abuse. A vaginal examination may create the feeling of being invaded; stimulate memories of the original abuse or even be experienced as sexual abuse itself (Hall, 2003). Further, undertaking a vaginal examination with the sole purpose of checking for and then clamping and cutting a nuchal cord early carries a significant risk of harm for woman and baby. It is in our view, contrary to midwifery’s espoused philosophy of supporting, nurturing and protecting normal birth where with the
woman’s consent interventions that are only really needed and are known to be beneficial are performed {Kitzinger, 2005}.

The History of Feeling for the Nuchal Cord
A literature search focused on original literature, specifically medical and midwifery texts. A unauthenticated reproduction of “The works of Aristotle” by Salmon alludes to feeling for the nuchal cord {1700}. This is possibly; the first documented evidence of feeling for the nuchal cord, albeit implicit. It is again mentioned by William Smellie, who hypothesizes a nuchal cord will not impede blood/oxygen circulation {1752}. Smellie’s second book {1785} includes instructions of how cutting the cord and applying only one ligature allows blood flow and placental shrinkage thus aiding separation.

In 1842 Megis wrote, if the cord was turned once or more around the neck so closely as to strangulate the baby then:

- the loop should be loosened;
- passed over the baby’s head;
- slipped down over the shoulders;
- if impossible the cord should be left to see if the baby births, or
- if birth prevented “cutting the funis” may be required.

1886 saw reference to feeling for the nuchal cord move from implied to explicit {1886}. This was concurred by other authors over the next few years {Gablin, 1893; Spiegelberg, 1887} However not all textbooks and/or journals at this time advocated cutting the ‘funis’. Haultain and Ferguson’s Handbook of Obstetric Nursing text {1898} recommended feeling for a nuchal cord but not to cut if one was found. This continued from 1904 – 1930 with authors such as Jellett {1926} and other international authors prescribing, what midwifery practice should be. One medical author offered his rationale to perform this procedure as that a nuchal cord occurs “…once in about every six labours”{Watson, 1904} Since that
time, however debate about the occurrence rate among the medical professional has seen
the frequency rate range between 2% -33% {Schorn, 1991; Larson, 1995; Kumari, 1992}.

**The Australian and New Zealand Experience**

With its diverse cultures, Australia was/is influenced by international and later national
midwifery practitioners and authors. As a result, early clinical education and learning
environments produced some midwives who included feeling for the nuchal cord in their
practice. Corkill {Corkill, 1932} a medical practitioner, wrote a book called ‘Lectures on
Midwifery and Infant Care: A New Zealand Course’. In this subsequent texts the midwife is
told to examine to see whether the cord is around the neck and if so clamping and cutting
it should it be necessary {Corkill, 1948}. During 1957 – 1969 this theme is reiterated in
midwifery student texts written by Australian medical professionals {Mayes, 1950;
Williams, 1957; Stevenson, 1960; Townsend, 1969}.

**Midwifery’s Beginning Knowledge base**

There was a fundamental change in midwifery in 1953. “A Textbook for Midwives’ was
published written by a midwife and midwifery teacher called Margaret Myles {1953}. This
text has been amended and published 14 times in the last five decades. It became and
remains a key text for student midwives around the world. Despite the then predominantly
female midwifery profession using this textbook, it consistently recommends feeling for the
nuchal cord {Myles, 1956 & 2003}. Myles (2nd edition) notes “…in about 40% percent of
cases the umbilical cord is looped round the baby’s neck usually once but sometimes two
or three times”. Unlike the 17th-century authors, Myles states that these loops seldom
cause difficulty. Acknowledging “…the novice practitioner tends to be over anxious and is
inclined to premature clamping and cutting the cord when it is not necessary” {Myles, 1956
p 302}. Advances in anatomy, physiology and patho-physiology permitted Myles to
correctly caution the practitioner about the potentially fatal implications of severing the
blood supply by cutting the cord before birth of the shoulders. Nevertheless, the newer
editions of that textbook continue to recommend feeling for the nuchal cord but offer no
references/evidence –based literature to support this teaching. It can be hypothesised that
its inclusion is influenced by earlier medical literature, which over time has become entrenched via midwifery submission to medical dominance. An example of this is offered by Jefford et al (2009) who found that midwives from USA, Australia, Ireland, NZ, UK and Northern Ireland stated, once a nuchal cord had been felt, they reverted to carrying out the intervention they had been taught during their training: to clamp and cut the cord. Further academic respondents, predominately from the USA but including one from the UK continue to teach midwifery students to feel for the nuchal cord despite having no evidence-base literature to refer to.

The Medicalisation of Birth
Up until the eighth decade of the 20th century, midwifery practice and midwifery education was focused through a biomedical lens. Midwives predominately practice their craft in hospitals and/or medical led units, which are ruled through the traditional biomedical focused male dominant profession. Further this male profession has, over centuries applied science to their understanding of the physiology of childbirth, which they understood as separate from the woman’s spirit and emotions {Callaway, 1978}. Terms such as non-intervention, supportive environment, encompassing trust, empowerment and women-centred are all excluded from consideration in their textbooks. Instead they hypothesised childbirth as potentially dangerous, with life threatening complications demanding active medical interventions: one such complication being a nuchal cord {Williams, 1957; Stevenson, 1960; Townsend, 1969; Corkill, 1932 & 1948}. Medical professionals today continue to inflexibly claim birth as a complex ritual that they control. Their naturally supposed superiority and patriarchal hierarchy were and are to be accepted by women {Harding, 1976}. The medical ‘knowledge’ and affect this has on midwifery care, such as routinely checking for a nuchal cord, totally ignores the philosophical foundations upon, which midwifery care is based. Whilst exploring birth culture and the politics of birth, Kitzinger (2005) claims the western world focus of birth is medical and technocratic. She writes from this perspective “…the mother is relevant only in so far as she is the container for the fetus. In fact she is an obstacle to inspection of the fetus” (p.3). It undermines the
normalcy of childbirth making women endure a medicalised birth and does not support or facilitate what is a profound and precious event in each woman’s life {ICM 2005; Fahy et al, 2008; Leap & Pairman, 2006; Kitzinger, 2005}.

A midwife’s scope of practice is to work in partnership with the woman supporting the optimization of women’s physiological, psychological, spiritual and social health. This has positive effects for the baby and family throughout the childbearing year {Pairman & McAra-Couper 2006; Kirkham, 2000}. Midwives use their expertise and evidenced-based knowledge to support and empower women to exercise autonomy during their unique childbearing journey. Page & Hutton{2000} defines evidenced-based care as ‘a process of involving women in making decisions about their care and of finding and weighing up information to help make those decisions” (p. 9). The woman/midwife partnership model of care is woman-centred and therein lays its accountability {ICM, 2005}. Interfering with this natural process, through rigid application of routine procedures such as feeling for the nuchal cord inhibits women’s behaviour and their ability to birth naturally. It takes control away from the woman undermining midwifery and the art of being with women. The midwife must acknowledge the woman’s right to make decisions about her care following full evidenced-based discussions {Page & Hutton, 2000}. However, midwifery practice and decision making occurs in such male dominant environments. Women and midwives have been seduced by this culturally crafted and entrenched culture in to believing this supposedly natural hierarchical disempowering system is acceptable {Callaway, 1978; Worell, 1996}. Kitzinger (2005) argues that in the name of ensuring a ‘safe birth’ rituals are employed that “…reinforce the power of the institution … and professional control over childbirth” (p.2). Such a ritual includes, in our view, the practice of feeling for the nuchal as is demonstrated by a midwife when asked about performing a vaginal examination to feel for a nuchal cord stated that “feeling for the cord is just routine here and because epidurals are too, women are not really aware of it going on” (Jefford et al 2009).
Conclusion
Performing vaginal examinations to feel for a nuchal cord has become a ritualised practice in many major maternity units. A search of the research literature showed that there is no defined scientific evidence-base for this practice. Our review of the historical documents has shown that the practice of checking for the nuchal cord is derived from the writings of early medical practitioners whose words have become sanctified by time.

We have argued that the manner, in which a midwife assists at a birth, has a definitive influence on the outcome for the woman and baby. Performing a vaginal examination during second stage labour is an invasive and often painful intervention. Midwives who continue to routinely check for the cord violate women’s rights. Further, such midwives contravene the philosophy of midwifery; being a woman-centred philosophy of partnership based on respect and trust. Checking for the cord is a fear-based practice that may lead to unnecessarily cutting the cord prematurely which can have serious, negative consequences for the baby. We have argued that what midwives are taught needs to move beyond the limits of the biomedical model and embrace a holistic, woman-centred philosophy as the basis for decision-making in practice. This means that each birth is unique and each situation of cord around the neck at birth is responded to with the lowest possible level of intervention taking into account the specifics of each individual situation.
References

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