

Although midwives in the US, Canada and Scandinavia (among other areas) have been offering women sterile water blocks for the relief of 'back labour' for more than two decades, this tool has not been adopted into widespread UK practice. It is, however, getting more attention in midwifery literature. A recent survey of 450 Nurse-Midwives working in the US revealed that just over a quarter of them offer this form of pain relief (Mårtensson et al 2008) and many of the US midwives who do not currently use them said they were interested in learning more. I suspect a study carried out in the UK, however, would show that some midwives are not even aware of the existence of this intervention because it is so rarely used or talked about here.

The Technique

Briefly, sterile water blocks (sometimes described as sterile water papules or intradermal sterile water injections) are used to relieve the intense lower back pain that Melzack and Schafferlberg (1987) suggest is experienced by about 30 per cent of labouring women. Using an insulin syringe with a small bore needle, 0.1 – 0.15cc of sterile water is injected intradermally into between one and four specific locations on the woman's sacral area. Of key importance, as the midwives surveyed by Mårtensson et al 2008 noted, is that, while sterile water blocks can be labour-changing for women who are experiencing the intensity of a back labour, they do little or nothing to relieve the pain of contractions. In fact, a wise American midwife once advised me to never offer these injections to a woman who was able to have a sensible conversation about her back pain.

In practical terms, this form of pain relief carries several advantages over epidurals and narcotics. Sterile water blocks can be administered by a midwife and they are far quicker and cheaper than an epidural. They don't affect a woman's ability to move, push or feel uterine sensations, they do not impact upon her baby's well-being and no additional monitoring is required after administration. On the other hand, while sterile water blocks arguably carry fewer risks than epidurals, most women experience an incredibly intense stinging pain for somewhere between 60 and 90 seconds during and after administration and the fact that injection is involved means that a small risk of local infection or inflammation exists.

But are they Effective?

The past few years have seen the publication of a number of studies and reviews which have added to the body of knowledge that we have about the effectiveness of this form of pain relief. Fogarty (2008) has recently published a systematic review of the literature in this area, and she concluded that

"...sterile water injections induce a statistically significant, dramatic analgesic effect on the low back pain experienced by women during labour; lasting from 10min and up to 2h post-administration ... [They] have proved to be a justifiable

alternative to the use of narcotics for birthing women and their midwives who are concerned about unwanted side effects for mother and baby. Their effect has been described as powerful, rapid and effective, with the potential to decrease or delay the use of epidural anaesthesia." (162)

Some of the studies reviewed have also suggested that the use of sterile water blocks may have an effect on decreasing the caesarean section rate, although this (along with a number of aspects of this technique, such as the ideal number of injection sites) requires closer study.

So what's stopping us?

Nearly ten years ago, Jean Robinson reviewed a study on sterile water blocks in AIMS Journal and commented that, "As so many women are unwilling to expose their babies to the effects of drugs, it is surprising that they are not more widely offered" (21). I also find it interesting to note the differences in the forms of pain relief that are offered to women in different countries. As above, US midwives are more likely to use sterile water blocks than UK midwives, and Fogarty (2008) suggests that Australian midwives may need to champion this intervention for women. By contrast, entonox is not an option that is offered to labouring women in the US, whereas its use is ubiquitous in the UK.

I will admit that I am somewhat torn about the addition of more interventions to the birthing toolkit. There is always a danger that interventions can become overused, and I know some midwives who have concerns about the net value of this tool. On the other hand, sterile water blocks are, on occasion, the key to keeping birth normal. If only for that reason, is it worth exploring this technique further?

References

- Fogarty, V (2008). Intradermal sterile water injections for the relief of low back pain in labour – A systematic review of the literature. *Women and Birth*. 21(4): 157-163.
- Mårtensson, L, McSwiggin, M, Mercer, JS (2008) US Midwives' Knowledge and Use of Sterile Water Injections for Labor Pain. *Journal of Midwifery and Women's Health*. 53(2):115-122.
- Melzack, R and Schafferlberg, D. (1987) Low back pain during labour. *American Journal of Obstetrics and Gynecology*. 156: 901-905.
- Robinson, J (1999). Pain Relief From Water Injections. *AIMS Journal* 11 (2): 21.