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Potential Dangers of Oxytocin

AIMS Journal, 1998, Vol 10, No 2

Oxytocin (Syntocinon) is a very potent artificial hormone and its use in labour is intended to mimic the natural hormone which is stored and secreted in varying amounts by the posterior pituitary gland, and which causes the womb to contract.

- It is possible that a dependency on synthetic oxytocin is created, labour may not proceed without its use in following pregnancies
- The manufacturers recommend that it should only be used to replicate "normal" labour contractions, because high titration can cause hypertonus (excessive contraction of the womb), and, in rare cases, rupture of the womb.
- Oxytocin predisposes the newborn baby to jaundice.
- Oxytocin reduces the oxygen supply to the baby's brain. The extraordinary strength and duration of artificially created contractions give the baby less time to recover because of the decreased interval between each contraction when the baby replenishes his/her oxygen supply.
- In induced or accelerated labour with oxytocin there is more risk of the baby experiencing a seizure, so it is necessary to monitor this labour carefully.
- Oxytocin increases the risk of post-partum haemorrhage.
- Individual women may be hypersensitive to oxytocin.
- Oxytocin can inhibit breastfeeding.

Further risks for the baby

Studies such as Thorp *et al*, (1988) seek to assure us that there are no inherent dangers in using a powerful artificial hormone like oxytocin, but there are other studies which imply that reducing oxygen levels to the baby's brain can have long-term effects, and these effects may be covert and not be evident in cord blood samples taken after birth.

It would be obviously unethical to perform such a study deliberately on babies, but in the work of Mallard et al (1992) in New Zealand, the blood supply to lambs in the womb was interrupted, the blood gas values recovered from the assault, but there was evidence of damage to the hippocampus area of the brain on investigation after slaughtering. This is the section of the brain which incorporates the memory. Can we be sure that escalating infusions of oxytocin will not cause long-term brain impairment? The only means of finding out for certain would be to conduct either retrospective work on children with learning disabilities or to follow up all babies who had been the subjects of induction or acceleration. According to Thornton and Lilford: 'Anecdotal reports of oxytocin apparently causing hypoxic brain damage, albeit

usually after protocol violations, are frequent in medico-legal practice'. The manufacturers of this synthetic hormone are quite clear in their warnings: if used unwisely it can cause permanent brain damage.

References

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- Thornton, JG, Lilford, RJ, *Active management of labour: current knowledge and research issues*, BMJ, 1994; 309:
- Thorp, JA et al, *Effects of high dose oxytocin augmentation on umbilical cord blood gas values in primigravid women*, Am J Ob Gyn, 1988; 159: 670-5.