AIMS For a better birth...

Research Roundup

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- Are anaesthetists losing their skills?
- Ginger for nausea
- Babies' behaviour after birth
- Uterine rupture rate increases

Are anaesthetists losing their skills?

Doctors from Birmingham and Queen Charlottes in London have compiled a useful summary of numbers of anaesthetics used in childbirth - both regional (epidurals and spinals) and general (where the mother is put to sleep). The authors highlight an important question: as the percentage of women getting epidurals for their caesarean increases, there simply may not be enough cases for anaesthetists to train in giving general anaesthetics. But for fast delivery, or when there are certain complications, a "general" will be needed, and the anaesthetist has to be skilled, since a general anaesthetic has greater risks for the mother and the baby, and emergency cases need the highest competence.

The authors collected figures from most of the 253 hospitals recognised for training by the Royal College of Obstetricians and Gynaecologists. In the year 1997/8 there were nearly 112,000 caesareans (the busiest unit did nearly 1400). This was 18.5% of births. Just over 40% were elective sections and the rest were "emergencies". However, there is no official classification as to which is which, and what is called an "elective" at one hospital may be classified as an "emergency" at another.

Just over 16% of women having elective sections had a general anaesthetic. A "general" was more common for emergency sections - 32%. Women in Scotland have a better chance of having regional anaesthesia for caesareans than women in England. There was a considerable difference between units as to the percentage of women having generals. A general anaesthetic has greater risk for both the mother and the baby, but it may have to be used when rapid delivery is needed.

Now less than 6,000 caesareans a year are done under general anaesthetic. At any one time there are 3000 trainee anaesthetists. This works out at 2 opportunities a year for each trainee. But some of these births will occur at units where there are no trainees.

The same problem has arisen with training of obstetricians in vaginal breech. There are less than 5000 vaginal breeches a year, and 856 specialist registrars - an average of 6 a year. However vaginal breeches happen unexpectedly, so there may be few chances to learn.

Aims comment

Not enough women around to train on - despite getting them all clustered together in bigger and bigger units. It's not so long ago that we heard that argument about the shortage of women having "normal" births to provide both case material for both obstetric and midwifery trainees - and that still applies, of course, because normal births (by our definition) are virtually non-existent. Their section on shortage of vaginal breech cases for obstetricians to practise on does not even mention that midwives need to learn also.

However this useful summary of the statistics makes an important point, which applies to other areas of medicine. As new techniques come in, old skills decline - one of the most notable being use of the Pinard stethoscope with the advent of fetal heart monitors and Sonicaids. In this case it is crucial that we have anaesthetists who are confident and experienced in anaesthetising labouring women in an emergency. And we do not want any woman to have an unnecessary general anaesthetic to provide training material. We see far too many cases already where women complain about procedures they think were unnecessary but they suspect were used by junior doctors to gain experience. It is not just about gaining experience, but learning in conditions of adequate supervision and maximum safety for the patient.

Just because there is plenty of "case material" for anaesthetists to train in for epidurals (69% of labours at one hospital) does not mean everything is fine. We notice a correlation in our files between women's stories of long term serious adverse effects, and apparent junior status and lack of experience in the anaesthetist.

Reference

- Khor L, et al, National obstetric anaesthetic practice in the UK 1997/8, Anaesthesia, 2000; 55: 1168-72.

Return to top

Ginger for nausea

A new trial of ginger for treating nausea and vomiting in pregnancy from Thailand[1] confirms earlier findings that it is effective, but raises questions about dosage and the possibility of unknown adverse effects.

Women who were about 10 weeks pregnant and suffering from nausea or vomiting were randomly allocated to have capsules containing 250 mg powdered ginger root or placebo. The ginger powder had been prepared in the University pharmacy, and ten doctors tried the capsules beforehand to see if they could tell which ones had the active ingredients.

Seventy women took the capsules for four days, and rated severity of nausea and counted episodes of vomiting. Women who had the ginger capsules had fewer episodes of vomiting. By the fourth day of treatment they had lower nausea scores than the placebo group. 87% said their symptoms improved compared with 28% of the placebo group.

In the ginger group one woman had abdominal discomfort, one had heartburn and one had diarrhoea for one day, but none was serious. No abnormalities were recognised in the babies at birth, but in a sample of 70 any change in levels of rare congenital abnormalities would not show up.

The researchers, from Chiang Mai University, point out that active ingredients in ginger, like other herbal products, vary according to where it is grown, climate, when it is harvested and how it is stored. What they used may be very different from what is bought locally over the counter, i.e. sugar mixtures containing low levels of ginger. The capsules used in the trial would still provide a "dose" lower than that used in many recipes.

One author[2] has pointed out that ginger could affect the binding of testosterone and it could theoretically affect sexual development in the baby's brain.

AIMS Comment

It is helpful to have a good quality randomised study from an area where they are knowledgeable about herbal treatments. We also particularly like their thoroughness in trying out the capsules beforehand to see if people could tell the difference. We have often thought more researchers should ask patients in blind trials which product they thought they had taken; this is very seldom done.

Past studies have shown ginger is effective in treating travel sickness, post-operation sickness and severe vomiting of early pregnancy (hyperemesis gravidarum). But this study is helpful in pointing out we still do not know enough about how it works and the dose. And the reminder that "herbal" remedies are not necessarily safe is useful, although there seems no reason at present for it to cause alarm.

References

1. Vutyavanich T et al. Ginger for nausea and vomiting in pregnancy: randomized, double-masked, placebo-controlled trial, Obstetrics and Gynecology, 2001; 97: 577-82
2. Backon J. Ginger in preventing nausea and vomiting of pregnancy: a caveat due to its thromboxane synthetase activity and effect on testosterone binding, Eur J Ob Gyn Reprod Biol, 1991; 42: 163-4

Return to top

Babies' behaviour after birth

Researchers from Stockholm have videotaped babies' behaviour after birth and shown that when the mother has had no drugs, the baby massages and licks the nipple long before it suckles. This causes a rise in the mother's levels of oxytocin, which helps the uterus to contract, increases the production of milk, and helps the mother to bond with the baby.

Ten babies who had normal vaginal births and whose mothers had not had oxytocin or pain relieving drugs in labour were observed. After birth they were dried, placed on the mother's chest and covered with blankets. Meanwhile the women had a cannula in the arm to obtain blood samples for measuring oxytocin levels.

The videos showed that babies started massaging the mother's breast with their hands for around 11 minutes before they first started feeding. Some infants licked or sucked on their hands or fingers. The baby then made massage-like movements around the nipple, which made the mother's nipple more erect. The infants also licked the nipple. They then began to suck the breast around 80 minutes after birth. When infants stopped sucking, the hand movements restarted.

Massaging movements from the baby were followed by a rise in oxytocin levels in the mother. When the movements decreased, so did the oxytocin. Oxytocin levels have been shown in humans and animals to be associated with bonding.

This stimulating of the mother's breast before suckling is similar to behaviour seen in animals.

AIMS Comment

This is a fascinating and useful piece of research, which shows how important it is to have uninterrupted contact between mother and child, without interference or disturbance. This is the first time that such hand massaging and licking before suckling have been recorded.

It is also yet another reminder or what the medicated and/or separated mother and child may be missing. The videos taken would be wonderful educational material for doctors, midwives and mothers to be. If they are not available because of research confidentiality, similar filming should be carried out as soon as possible, with mothers' consent.

Although AIMS continues to campaign for normal, unmedicated births to be available, we have to recognise that many mothers will not be able to have them for sound medical reasons. So we also need research to establish the optimum pattern of contact and care for post-caesarean deliveries. Television films where the baby is briefly shown and whisked away raise many questions.

Reference

- Matthiesen A, et al. Postpartum maternal oxytocin release by newborns: effects of infant hand massage and sucking, Birth 2001; 28: 13-19

Return to top

Uterine rupture rate increases

The Department of Public Health in Massachusetts was concerned at an apparent increase in uterine rupture cases and so they looked at records for this diagnosis. They found 480 cases between 1990 and 1997, over 92% occurring in women who had had a previous section. However, there had been a considerable increase in that period. The rate doubled from 0.46 to 0.92 per 1000 live births. The rate among women with a previous section increased from 3.79 to 8.48 per 1000.

AIMS Comment

Could their increased rate of rupture after caesarean have anything to do with the prostaglandin inductions which are causing such problems here?

Reference

- Weiss J et al, Population-based uterine rupture rates 1990-7, Paed Perinatal Epidemiol, 2000; 14: A1-A34.

Return to top