AIMS For a better birth...

Research Roundup

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AIMS Journal, Autumn 2000, Vol 12 No 3

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Brain Damage from Amniocentesis

A report from Oxford gives details of five babies who were severely brain damaged by amniocentesis because the probe had entered the skull. The mothers had the procedure done because they were over 35. In two cases there was continuous ultrasound for guidance. All five babies had a mark or dimple on the scalp.

In one case the needle was seen inside the head on the ultrasound and tissue fragments were found in the fluid. The woman chose a termination. In four other pregnancies which continued, children had epilepsy, developmental delay, partial paralysis, and failure of part of the brain to develop. One child died aged 2, another aged 7. This last child was a twin, whose surviving sister was normal. One child has had half the brain removed to treat intractable epilepsy.

In only two of the five cases was continuous ultrasound used.

The authors conclude that even in expert hands, and with continuous ultrasound, there is still a risk, which parents should be told about. If bloodstained fluid is withdrawn, it should be sent for analysis to see if brain or other tissue is involved. Subsequent ultrasound scans may be normal and the severe injury

may not be suspected during the pregnancy.

AIMS Comment

It must have been tragic for these parents, having a test probably in the hope of avoiding a Downs child, to find more catastrophic damage from the test designed to detect it. There are a number of other reports of amniocentesis injury in the literature, including some on eye damage. Continuous ultrasound is known to reduce risk, but obviously does not eliminate it. Parents must be warned so that they can give truly informed consent.

We are grateful for this thorough and meticulous piece of work. Sadly, because of recent scandals about the way in which consent for retention of organs and disposal of tissue has been handled in the past, parents are likely to be more reluctant to consent to a post mortem or retention of tissue. That would make essential research like this impossible. Consumers and professionals need to work together.

Reference

- Squier, M, et al, Five cases of brain injury following amniocentesis in mid- term pregnancy, Developmental Med Child Neurol, 2000: 42: 544-560

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We Were Wrong - The Baby Has Downs

What happens when parents are told that the tests show the baby has no signs of Downs syndrome but the tests are wrong? Until recently there was little information on the results of such "false negative" tests. Was the family worse off than those who had not been offered tests, or had refused them?

This new study comes from a team with wide experience in this area, funded by the Medical Research Council and the Welcome Trust. 259 mothers and 173 fathers whose children were now 2-6 years old were interviewed. The parents had on the whole adjusted well, but those who had a test which failed had more problems than those who had refused or not been offered one. The mothers had higher parenting stress and more negative attitudes towards their children. The fathers had higher parenting stress than those who had not been offered a test.

Both fathers and mothers in the "false negative" group were more likely to blame health professionals, and this "blame" was associated with significant levels of stress, more negative attitudes in both parents, as well as higher anxiety in mothers. 27% of those with false negative tests blamed others compared with 14% of those not offered tests and none of those who had refused tests. "Had the people been in front of me who had told me everything was going to be all right I could quite honestly have killed them" said one

mother. Some parents had been denied amniocentesis.

The authors conclude that accurate information giving was important in order to reduce unrealistic expectations.

AIMS Comment

We have had a number of distressed calls from mothers who were falsely reassured by test results, or were refused amniocentesis. It seems amazing that only now are these questions (which we have been asking for years) being investigated. The researchers only analysed results where mothers' accounts and screening records agreed. 80 mothers and 51 fathers were excluded from the analyses because mothers' histories were different from those in the files. Thereby hangs many a tale, I thought.

Obviously as consumers we need to take much more interest in the growing literature on the effects of "blaming" which concentrates on labelling the blamers as having poor psychological outcomes rather than looking at why they felt they had cause to blame, and how professionals had reacted to potential criticism. Many of our callers have very good reason to blame those who gave them faulty or dishonest care.

This research has powerful implications for those who inform women about the accuracy and reliability of antenatal tests.

Reference

- Hall, S, Bobrow, M, Marteau, T, Psychological consequences for parents of false negative results on prenatal screening for Down's syndrome: retrospective interview study,BMJ, 2000: 320: 407-412

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Discrimination in Dublin

A woman consultant obstetrician in dublin has won the biggest ever award from an Irish Labour Court in an equality case. Dr. Noreen Gleeson applied for a consultant post shared by two Dublin hospitals - the Mater and the Rotunda. A man got the job, though she was better qualified had more experience and better publications.

The man was allowed to re submit his CV, which had been altered, after the closing date, showing they intended to appoint him. Dr Gleeson was also asked discriminatory questions in her interview. There were eight men and one woman on the interview board.

She won £50,000, which she gave to charity.

Reference

- Birchard, K, Irish doctor wins sex discrimination case, Lancet, 2000; 355: 1895

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Eating In Labour

Two anaesthetists in Inverness added a few questions to the hospital's postnatal satisfaction questionnaire. They asked women "If it had been possible, would you have wanted anything to eat in labour" and "Do you feel that having something to eat would have made a difference to your satisfaction with your labour?"

They found that 30% of women would have wanted to eat during labour, and a quarter of them felt it would have made a significant difference to their satisfaction. On the space given for comments, a number admitted that they had eaten secretly during early labour.

As nearly a third of caesareans in their unit were done under general anaesthetic, the anaesthetists were concerned.

AIMS Comment

They asked whether access to food would have made a difference to "satisfaction", whereas a number of women tell us it makes a difference to outcomes. (Our home birth clients provide useful information on how much, how often, and what women choose to eat when they have a free choice, and their views on what a difference it makes when they are having an exhausting long labour with a malpositioned baby). Once again we are faced with the problem of amateurishly worded questionnaires. Nevertheless this is a useful piece. And doctors are much more likely to take notice of answers to a questionnaire they did themselves than expert results from a social scientist.

One thing which does come out is that women ate "secretly" in labour in hospital. Isn't it about time they felt free to eat openly?

Reference

- Armstrong, T, and Johnson, I, Which women want food during labour? Results of an audit in a Scottish DGH, Health Bulletin, 2000; 58: 141-144

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Men Use More Forceps

Dr Karen Bonar and two colleagues in Florida decided to see whether male obstetricians had a higher forceps delivery rate than their female colleagues. They looked at records of over 350,000 births attended by more than 800 hospital obstetricians throughout the USA.

Male obstetricians in training used forceps in 7.6% of all births compared with 6.3% in female doctors. They used forceps in 12.4% of vaginal births compared with a 9.9% of births attended by their female colleagues. These differences were highly statistically significantly and would not have arisen by chance. Vacuum births did not differ according to the sex of the obstetrician.

AIMS Comment

No comment!

Reference

- Bonar, K, et al, The effect of obstetric resident gender on forceps delivery rate, Am J Ob Gyn, 2000; 182: 1050-1

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Hormones and Postnatal Depression

Women who get postnatal depression seem to have an increased risk of getting it again, and it may be that some of them are particularly sensitive to changes in hormone levels. American researchers compared the effects of induced hormone withdrawal, then restoration, on a group of women who had had postnatal depression and a group who had not, in a double-blind trial. For five months women had a monthly injection of a drug to stabilise hormone levels, then they were given oestrogen and progesterone to add hormones back - the dose being gradually increased. Then the hormones were replaced with placebo tablets to mimic the hormone changes which follow birth.

Women with a history of postnatal depression had a significant increase in depressive symptoms during the withdrawal phase whereas the control group did not.

AIMS Comment

Firstly, our grateful thanks to the 16 women who responded to newspaper advertisements and took part in the study, which could have been unpleasant and risky for them but may bring future benefits to other women. This study provides valuable new data and may lead to new ways of preventing the problem or giving more effective treatment to some of the women who get postnatal depression.

Reference

Bloch, M, et al, Effects of gonadal steroids in women with a history of postpartum depression, AmJ Psychi, 2000; 157: 924-930

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Spiritual Birth In Japan

Doctors from Japan wrote to The Lancet to report on effects of giving birth in birthing houses" (which sound like midwifery run units) in Japan. Until the 1950s most Japanese women delivered at home with a community midwife. Now 95% give birth in hospital. There are still about 300 small birthing houses, where staff are known for "their respect of the physiological process" and avoid unnecessary intervention. They "pursue the fulfilment and empowerment of women and staff".

One unit had had 998 births since 1974, of which 14% needed referral to hospital. There were no maternal or neonatal deaths (NB It is not clear if outcome for transferred cases are included in the statistics). 175 mothers reported on their experiences in "self reports". These were "vivid and full of spiritual joy". 60% felt more confident in themselves and 50% felt more compassion and a sense of unity with the universe. The authors comment that these women may have a chance to experience a dynamic

spiritual state of their body leading them to a self-transforming experience and conclude maybe we should reconsider what birth means to women.

AIMS Comment

Many women telling us about their happy birth (usually at home) struggle to describe the spirituality and "other-dimension" of the experience. Their labours were not necessarily easy and may have been long and painful, yet the spiritual effect is still there. Maybe the English language is not good at providing words to describe what women feel, or we are not used to describing such feelings. Perhaps Japanese has a vocabulary better suited to describing the spiritual aspect, or culturally women feel it is more acceptable to do so. The one thing more obviously in common between the two is the increase in confidence when a successful birth is achieved in the woman's terms. One thing is for sure, the spiritual aspect is not going to be picked up on superficial maternal discharge questionnaires.

Reference

- Misago, C, et at, Satisfying birth experiences in Japan, Lancet, 2000; 355: 2256

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Post-Traumatic Stress Disorder

A useful new prospective study comes from Australia. Nearly 600 pregnant women in Brisbane were contacted in pregnancy and filled in forms to measure how anxious they were. They were interviewed by telephone 4-6 weeks after giving birth and a Perception of Care Questionnaire was used. A third of the women reported a stressful experience and having three or more trauma symptoms. 5.6% met the criteria for acute post-traumatic stress disorder, as they had all six symptoms - and there was no difference between those having a first or later baby.

Risk was not affected by whether they had had childbirth preparation, support from their partner or how anxious they were.

What did predict symptoms was the level of intervention (e.g. an emergency section, forceps delivery or quality of postnatal analgesia). These were highly statistically significant. Vacuum deliveries and fearing for the baby's life were also related, but less consistently.

Dissatisfaction with care was a significant contributor. Women's view of the professional and technical skills of the staff was significantly related to risk. However, emotional aspects of care were not significantly related. Women who had both a high level of intervention and saw their care as poor were

more likely to get PTSD than those who also had a lot of intervention but thought care was OK.

AIMS Comment

This is a useful study which confirms many of our impressions, though we were surprised that quality of emotional care did not show up as a risk factor as strongly as in our workload. Unfortunately the questionnaire they used is only available in an Australian Ph.D so we can't check it out. Like other research we have seen, this paper looks at women's "perceptions" of the care rather than the quality of care itself.

We are only going to get a definitive study if births are observed (and preferably filmed). We were pleased that the authors confirm many women who don't count as full-blown PTSD cases often have some of the symptoms and are badly affected.

Reference

- Creedy, D, et al, Childbirth and the Development of acute trauma symptoms: incidence and contributing factors, Birth, 2000; 27: 104-11

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Stress and Baby's Blood Supply

A group of doctors at Queen Charlotte's hospital in London have done a study to see if anxiety in the mother during the last three months of pregnancy affects resistance in the artery supplying the uterus. A number of previous studies have looked at effects of stress and one has found it can affect birthweight as much as smoking. We now know that low weight at birth increases the child's risk of getting high blood pressure and heart problems later in life.

Over 100 women filled in questionnaires to measure anxiety - both their usual state and their current feelings. They then had Doppler scans (which can measure blood flow) and the records were examined afterwards by people who did not know the women's anxiety scores. The women with high anxiety had worse "uterine velocity waveforms" - there was a strong correlation between anxiety and blood supply to the fetus.

AIMS Comment

This is useful in that doctors and scientists are likely to take hard physical measurements more seriously than earlier case-control studies showing babies of worried Mums are likely to be smaller. The price paid

was 119 babies being exposed to a clinically unnecessary Doppler scan (which gives a bigger dose of ultrasound than the usual real-time scan). What is more this was colour Doppler, where the dose is higher still. The report says mothers gave informed consent - but did the information include the fact that exposure Doppler can actually reduce fetal growth?

The main source of stress we deal with at AIMS comes from midwives and doctors pressurising women to have care they do not want (like hospital births), and some of them are very stressed indeed. We do our best to support and calm them, but then we have to pick up the pieces after the next visit from the midwives or letter from the Trust. Even worse are those who are under pressure from social services, with the implication that their babies may be taken away. This research also has implications for the way pregnant travellers, asylum seekers and prisoners are treated. Antenatal care should specifically try to support women, reduce anxiety, and not create more.

Reference

- Teixeira, M, Fisk, N, Glover, V, Association between maternal anxiety in pregnancy and increased uterine artery resistance index: cohort based study, BMJ, 1999; 318: 153-7

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How Much Oxytocin?

A team in Dundee did a telephone survey of 33 maternity units in Scotland asking about their usc of oxytocin: the amount of fluid they used, the minimum and maximum dose, how frequently the dose was increased and by how much. Two years ago the Royal College of Obstetricians and Gynaecologists published guidelines saying that it should be given in the smallest possible volume by an accurate pump starting at 1-4 mU/minute. The dose should not be increased more often than every 30 minutes, until there were 3 contractions every 10 minutes. The maximum rate should be 12 mU/minute and the total dose should not exceed 5 IU.

The survey found a huge variation: 19 of the 22 units would use more than the maximum dose of 5 IU recommended in the RCOG guidelines. Only 5 units used a low dose "physiological" regime (i.e. aiming for something like normal labour) despite good research evidence that it is effective and more likely to avoid hyper-stimulation of the uterus, whereas 17 used a "pharmacological" effect higher dose. Fluid volume varied from 12 ml an hour to 180 ml an hour. The maximum dose varied from 9 mU/minute to 48 mU/minute. Intervals for increasing the dose varied from 5 to 30 minutes, although there is evidence that shorter intervals have greater risks.

AIMS Comment

This simple, basic, but important study has important implications for safety of mother and baby, as well as the mental health of the mother. Our Scottish team will be raising this with the Scottish Home and Health Department. The situation is potentially dangerous. No wonder women in Scotland are needing all that heroin in labour. Meanwhile, we don't know what is happening in the rest of the UK. Maybe every woman planning a hospital birth should have a copy of RCOG guidelines and obtain a copy of the oxytocin protocol for her local unit, just in case she needs it.

Reference

- Arnott, N, et al, Variations in oxytocin regimes in Scottish Labour wards in 1998, J Oh Gyn, 2000; 20: 235-8

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Too Much Naloxone

When a mother has been given opiate drugs in labour, these can affect the baby after birth, and doctors may give a drug called naloxone to the infant to reverse the effects. This can cause problems. If the mother was a drug addict, it can cause a withdrawal reaction in the baby, and giving naloxone too early can distract doctors from the essential job of making sure the baby has a clear airway and is getting enough oxygen.

A doctor at the Southern General Hospital in Glasgow looked at records in 2000 deliveries - half before, and half after new guidelines were in place for use of naloxone.

Nearly half the mothers (44.3%) had opiates in labour.

Before the protocol was introduced 7.3% of babies were given naloxone and after it came in only 0.23% There was no increase in problems in the babies. In fact slightly more babies had breathing problems in the days when naloxone was more widely used (7.2%) than afterwards when it was reduced (5.2%).

AIMS Comment

We got this information from a very brief summary. If all those mothers weren't given opiates the babies wouldn't have needed the naloxone. Many mothers don't realise that when they agree to be given drugs

in labour, their baby may have to have a drug to reverse it. However, this is yet another example of how studying and reporting on what professionals are actually doing can he very useful.

Reference

- Cochran, 0, Safe reduction in administration of naloxone to newborn infants, Arch Dis Child, 2000 Suppl 1 A31

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Superstition and Hospital Discharge

In Northern Ireland there is a superstition "A Saturday flit is a short sit". Moving home on a Saturday is thought to be unlucky, and those who do so will soon have to move again. So patients who are sent home from hospital on a Saturday often think it increases their chances of having to come back in.

Two researchers in Belfast looked at 77,000 maternity admissions and discharges over four years. They found there were more than the expected number of discharges on Fridays and Sundays, and 35.7% fewer than they would have expected went home on Saturdays. Admissions on Fridays and Saturdays did not differ from the number expected. They suggest this is due to patients being reluctant to go home on Saturday, preferring early discharge on Friday or staying for an extra day to Sunday.

The same belief about Saturdays is common in the south also. A study of doctors in Ireland showed that 40% would allow later discharge to fit in with patients' superstition.

A study in Japan has also shown that patients believe some discharge days to be unlucky. and this can affect hospital costs.

However, not fitting in with patients' superstitions could actually make them ill, since it might upset them so much as to have an adverse effect.

AIMS Comment

While we study and comment on the cultural beliefs of immigrants, we often miss looking at our own. Superstitions about Saturday are also reported from Wales and Scotland. If women started telling doctors they had a "superstition' about giving birth at home, would they take more notice?

Probably not; they think women's belief in normal birth is irrational anyway.

Reference

- O'Reilly, D and Stevenson, M, The effect of superstition on the day of discharge from maternity units in Northern Ireland: A Saturday flit is a short sit, J Oh Gyn, 2000; 20: 139-41

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