AIMS For a better birth...

Research Roundup

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- How reliable is ultrasound of newborn babies?
- Acupuncture more beneficial than physio for pregnancy back pain
- More on Caesarean rates for doctors
- Caesareans do not prevent urinary incontinence
- Natural pain killers in breast milk

How reliable is ultrasound of newborn babies?

Increasingly ultrasound examination of the baby's brain is used after birth to diagnose complications which may lead to later problems, like cerebral palsy. A new study shows that many doctors looking at scans have not had formal training, different doctors may give very different interpretations of the same scan, fail to pick up important conditions, and give parents inaccurate pictures of the child's future. In some cases they may fail to carry out treatment which could make a difference.

Researchers from the Hammersmith and Great Ormond Street hospitals in London wrote to doctors in the North and South Thames regions who usually did ultrasounds in a neonatal or special care baby unit. They were each sent six scans, asked to describe the abnormalities they showed, say how they would manage the case, and what they would tell the child's parents.

70% of the questionnaires were returned - mostly by registrars. 97% of the registrars replied but only 38% of consultant paediatricians. Only 44% of the registrars had attended a training course or had had some formal teaching - the remainder were "self-taught". There are courses in London, but places are limited.

The correct interpretation rate was only 59% for scans showing definite abnormalities. When there was more than one problem in a child, sometimes one was identified but others which were more serious were missed. "Some answers were worryingly inaccurate" say the authors.

They conclude "Such inaccuracy would not be acceptable in other imaging domains and we believe that we have highlighted a significant problem that has widespread implications... Important errors may be occurring in routine clinical practice..."

Aims comment

Our thanks to the authors for this important study, which is not likely to endear them to their colleagues. Here we see the same problems as with ante- natal ultrasound - learning on the job, with varying levels of expertise. The fancy machines may provide the pictures, but who has the know-how to interpret what they show? It is alarming to think that anxious parents are waiting on the expert's every word to tell them the prognosis for their child - and they could be wrong.

We also have to remember that ultrasound scans are used as evidence in prosecutions of parents for alleged non-accidental injury.

Finally, we question the authors' bland assurance that "cranial ultrasound is safe" - especially as they are recommending daily scans to monitor conditions and improve diagnosis. Where is their evidence from long term studies? How do they know?

Reference

- Reynolds P, Neonatal cranial ultrasound interpretation: a clinical audit, Arch Dis Childhood Fetal Neonatal Edition, 2001; 84: F92-F95.

Return to top

Acupuncture more beneficial than physio for pregnancy back pain

Low back pain and pelvic pain are common in pregnancy. It seems to be more common in those who smoke, or those who have strenuous jobs. It is the leading cause of sick leave in pregnant women in Sweden, where counselling, exercises and water gymnastics have all been shown to help.

A new study from Sweden compared acupuncture with physiotherapy in a total of 60 women; acupuncture brought greater benefits.

The women were all asked to give ratings for morning and evening pain, both before and after treatment. They were randomly allocated to one or other group. One group had 10 acupuncture treatments - 3 times a week for a fortnight, then twice a week. They started with ear acupuncture followed if necessary by body- acupuncture. The others had 10 physiotherapy treatments - individualised according to need. There were no serious adverse effects in either group.

All the acupuncture group completed the course, whereas 12 dropped out of the physiotherapy treatment. Pain scores decreased more in the acupuncture group than the physiotherapy group. So did disability scores - acupuncture reduced disability, whereas physiotherapy did not.

This surprised the authors, who had thought of acupuncture merely as pain relieving; they had thought physiotherapy would be better at "rehabilitation". What is more the physio group had had instructions on

how to carry out daily activities in order to avoid pain and worsening of disability, whereas the women in the acupuncture group had none.

As the authors point out, they are reporting only on short-term effects, but in most cases low back pain gets better after pregnancy whether treated or not.

AIMS Comment

We are always asking for studies of alternative therapies and we were delighted to see this one. One problem we find here is that physiotherapy treatments vary and from the stories we receive, the personality and approach of the physiotherapist can be helpful - or the reverse. It would be helpful to repeat the study here. Meanwhile, it looks as if acupuncture is worth a try.

Reference

- Wedenberg K, et al, A prospective randomized study comparing acupuncture with physiotherapy for low-back and pelvic pain in pregnancy, Acta Obstet Gynecol Scand, 2000; 79: 331-335.

Return to top

More on caesarean rates for doctors

Women who have private care for their deliveries in South Africa are at least 50% more likely to have a caesarean section than those in public hospitals. A groups of doctors in Johannesburg followed up 90 pregnant women doctors to see how many had caesareans. Just over half of them were expecting their first child. Almost all had a private obstetrician.

More than a third (35.6%) planned an elective section - half because they had had a previous section, and half because they wanted one (because they could time delivery, fear of perineal trauma or because they thought caesars caused fewer complications).

Only 7 of the 39 primips planning a normal vaginal delivery got one. More than half (21) had emergency caesars and 11 had forceps or vacuum deliveries. Just over a third of the multips (14 out of 39) got a normal vaginal delivery.

The authors comment:

> *"The rate of medical intervention... and the disparity between the expectations and the actual birth experience, particularly in primiparous women, was alarmingly high... We believe that the time has come for a critical appraisal of the increasing incidence of cesarean sections."*

AIMS Comment

Of course we do not know how these outcomes differ from those in privcate obstetric care in South

Africa generally. But it does mean that among women doctors, few will have the experience of normal birth. And how depressing that supposedly medically educated women are so ill-informed about the risks of caesareans.

Reference

- >Lawrie T et al, *High cesarean section rates for pregnant medical practitioners in South Africa*, Int J Gyn Ob, 2001; 72: 71-3

Return to top

Caesareans do not prevent urinary incontinence

It is getting pregnant, not the type of delivery, which mainly increases a woman's risk of urinary incontinence.

As Brazil has one of the highest caesarean section rates in the world, it provides a useful population to compare risks of urinary incontinence in three groups: women who have never been pregnant, woman who have had only caesarean deliveries, and women who have given birth vaginally.

Doctors there questioned women attending menopause clinics. They compared over 90 women without incontinence with a similar number who had stress or urge incontinence or both.

The risk of developing incontinence was about five times greater in women who had had one or two pregnancies; a larger number of pregnancies did not increase the risk further.

Compared with childless women, the risk went up 3.5 times for women who had all their babies by caesarean. It went up 4.28 times for women who had had one or more vaginal deliveries - but this was not a statistically significant difference. (Had the sample been larger, there would have been a greater chance of finding such a difference if it existed). It was the difference between those who had been pregnant, and those who had not, which was significant.

Previous studies have shown that most postnatal problems with urinary incontinence had started during pregnancy, so antenatal incontinence may identify the vulnerable women. The authors did not gather information on type of vaginal delivery, and some other studies have suggested longer second stage, and larger babies may increase risk. More traumatic births could increase the risk of incontinence over and above the risk of pregnancy itself.

The authors conclude: "On the basis of data presented here and the available literature, C-section cannot honestly be offered as the solution to avoid urinary incontinence." They point out that other studies showing vaginal birth as an important risk factor for urinary incontinence had not checked to see what the risk was for women who had only had sections.

These findings are not new, since research with the same results was published over 30 years ago.

AIMS Comment

Someone should tell the women doctors in South Africa about this study!

Reference

- Faundes A, The risk of urinary incontinence of parous women who delivered only by cesarean section, Int J Gyn Ob, 2001; 72: 41-46.

Return to top

Natural pain killers in breast milk

Beta-endorphins are the body's own natural painkillers. The levels increase during pregnancy, and further increase during the first and second stages of labour. Suckling also causes release of beta-endorphins. Their levels are twice as high in the new mother's milk - colostrum - as in later milk. They are absorbed by the baby and reach the central nervous system. Vaginal delivery and the first hours of life outside the womb may be stressful for the baby. It is possible that beta-endorphins from the mother may be helpful.

A recent study compared levels of beta-endorphins in colostrum of women who had elective sections, and those who had vaginal births, without oxytocin or epidurals. Samples of milk were obtained from 14 mothers in each group four days after the birth.

Mothers who gave birth by caesarean had significantly lower beta-endorphin levels in their colostrum.

The authors conclude "the notion that psychobiological events in labor contribute to postnatal adaptation mechanisms for the neonate has implications for current approaches to psychoprophylactic and pharmacological intervention in the labor process."

AIMS Comment

We find that women's reactions to labour pain are much more varied than the comments we see in obstetric or anaesthesia literature. Many see it as worthwhile and part of the achievement. Perhaps this provides yet another piece of evidence that mothers were right all along.

We also wonder whether the relationship between pain relieving drugs in labour and the increase in risk of drug addiction in children in later life, could be because of the lack of "training" their brain gets in the natural endorphins they would otherwise have been exposed to.

The study also shows that mother's milk may be especially important to infants having lots of stressful procedures in the special care baby unit.

Reference

- Zanardo V et al, Labor pain effects on colostral milk beta-endorphin concentrations of lactating mothers, Biol Neonate, 2001; 79: 87-90.

Return to top