AIMS For a better birth...

Research Roundup

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AIMS Journal, Spring 2000, Vol 12 No 1

- Antibiotics - a cause of sepsis in babies?
- Rupture with Vaginal Birth After Caesarean
- Dangers of immunisation in premature babies
- Mother's attitudes to vaccination
- Obstetric hysterectomy - an alarming report

Antibiotics - a cause of sepsis in babies?

If mothers have been given antibiotics during pregnancy or in labour, it may mean that if their babies get serious infections they will be resistant to antibiotics.

Doctors in Memphis, Tennessee, studied outcomes in around 8,500 births, and looked at the 96 cases where babies had developed sepsis. This is much more common after premature birth - three-quarters of the babies were premature. Nearly half the germs the babies had were resistant to ampicillin, a common antibiotic. The chance of the baby have resistant organisms went up if the mother had been given antibiotics during pregnancy or labour.

Sometimes the mothers had been treated with antibiotics when pregnant unnecessarily, for example for upper respiratory tract infections (colds and sore throats) which are usually caused by viruses and are not helped by antibiotics anyway. The authors also point out that antibiotics given during labour or delivery could be given after the cord was clamped, so that the infant does not get an unnecessary dose.

AIMS Comment

This study does not prove that antibiotic exposure causes drug-resistant illness in babies, but it does suggest that antibiotic treatment should only be used when necessary, and should be used with care.

Reference

- Mercer B et al, Antibiotic use in pregnancy and drug-resistant infant sepsis, Am J Ob Gyn, 1999;

181: 816-21

Return to top

Rupture with VBACs

We now have three more studies - from the USA and Canada - on risk of rupture of the uterus in trying for a vaginal delivery after a previous section.

The first looks at risk with induction or speeding up of labour after women had had one previous caesarean section.[1] The authors looked at records for 12 years and compared risks for induced labour with those who laboured spontaneously.

The uterine rupture rate was 2.3% for those who had induced labour and 0.7% for those with spontaneous labour. The highest risk was for women who had had prostaglandin gel (4.5%), though most of them had also had oxytocin.

The second study compared risk of rupture in women who had had one, or two, previous caesareans.[2] Again, they studied 12 years of records. The uterine rupture risk was much higher in those with two sections. It was 0.8% in the one scar-group and 3.7% in the two-scar group. The researchers looked at all the risk factors - use of oxytocin or prostaglandin, birth weight of baby, maternal age, use of epidural and found the two-scar group were almost five times more likely to have a uterine rupture after allowing for other factors.

The third study, from Canada looked at women with a scar who also have "mullerian duct anomalies"[3] These are women who have an abnormality of the uterus which may be divided in two parts, or a double uterus, etc.(e.g. bicornuate or septate uterus) This may affect 1.2% - 4% of women. They are often likely to have caesarean sections for malpresentation. The authors studied five years records in Calgary and found 25 such women who had tried for vaginal deliveries after a previous caesarean. Two of them suffered a ruptured uterus (8%) but both had been induced with prostaglandin gel, and one had had oxytocin as well. Although the rate of rupture was only 0.61% in the 1800 women with apparently normal uteri, the authors do not say how many had had prostaglandin or oxytocin and whether that added to their risk.

AIMS Comment

It is useful to have more studies on this, as women often ask us about such risks. It is also useful to be able to know exactly how big the risks may be but, as always, we do not have enough information on how labours are managed, and how far that adds to, or reduces, risks.

Reference

1. Zelop C et al, Uterine rupture during induced or augmented labor in gravid women with one prior cesarean delivery, Am J Ob Gyn, 1999; 181: 882-6
2. Caughey A et al, Rate of uterine rupture during a trial of labor in women with one or two prior cesarean deliveries, Am J Ob Gyn ,1999; 181: 872-6
3. Ravasia D et al, Incidence of uterine rupture among women with mullerian duct anomalies who attempt vaginal birth after cesarean delivery, Am J Ob Gyn, 1999; 181: 877-81

Return to top

Dangers of immunisation in premature babies

Doctors from Winchester report four cases where premature babies developed severe apnoea (failure to breathe) within 24 hours of having diphtheria, pertussis and tetanus (DPT) and influenza (Hib) immunisation. They had to be resuscitated, and one needed to be incubated and ventilated.

The authors suggest that the risk of severe apnoea (failure to breathe) after immunisation may be as high as 8% in babies born before 30 weeks. Neonatal units usually immunise premature babies at around 8 weeks after delivery, but it may be wise to delay this.

AIMS Comment

The risk may not be only in premature babies. We know of cases where parents have been accused of child abuse when they reported apnoea attacks in their babies. But they believe the cause was recent immunisation.

Reference

- Slack M, Shapira DE, Severe apnoeas following immunisation in premature infants, Arch. Dis Child Fetal Neonatal Ed, 1999;81: F67-F68.

Return to top

Mother's attitudes to vaccination

There was concern in Dublin about too few babies having the new Hib vaccine (Haemophilus influenzea type b), so a lecturer and a professor of general practice and a psychologist did a study involving in-depth

interviews with 23 mothers with one year old babies who had varying attitudes to immunisation.

Three mothers would not have Hib because of previous bad experiences - for example the child's adverse reaction to previous injections. One blamed this on vaccine overload.

Those who accepted the new Hib vaccine were concerned about the risks of meningitis. Many had heard of cases among friends and neighbours. However, mothers wondered how well the new vaccine had been tested, and most were aware it did not protect against meningococcal meningitis - though others believed it was a virtual guarantee against any form. Some feared the vaccine might cause adverse effects, including damage which might not show up immediately, or start off or unmask meningitis. However knowing other children who had not suffered ill effects was reassuring, and they balanced the potential risks against the risk of meningitis and chose to immunise.

What was most off-putting to mothers was the need for a second injection, which they thought "cruel" and they found it hard to comfort children who were upset after the first and then had another. They also felt that babies were having too many antigens when they were too young "an awful lot of medication to be pumped into their system in one go."

Some were sceptical about the need for so many vaccines with many diseases being less common. They also suggested that doctors and drug companies might be exaggerating risks for their own purposes.

The authors comment that studies of professionals have also shown that they are reluctant to give three injections at one visit, and conclude that any proposal to add new vaccines should note the resistance of mothers both to multiple injections and to possible vaccine overload.

AIMS Comment

This in depth study is a wonderful contrast with the other piece from Dublin reviewed above, and shows what rich and useful information can be gained when you allow mothers to say what they really think, and you actually listen. My only criticism is their references to those who don't have babies immunised as "defaulters" - a term we thought had long been abandoned. This is neither respectful nor appropriate.

Reference

- Harrington, P et al, Vaccine, yes; injection, no: maternal responses to the introduction of haemophilus influenzae type b (Hib) vaccine, Br J Gen Practice, 1999; 49: 901-2

Return to top

Obstetric hysterectomy - an alarming report

Emergency hysterectomy has to be done occasionally to save the mother's life at delivery when there is uncontrollable haemorrhage.

A recent report from St. George's Hospital in London shows that emergency hysterectomies at delivery have increased seven-fold in recent years. Between 1992 and 1998 the unit did 10 such operations. Only two were done in the first four years, making it a rare occurrence of one in 7,000 deliveries. However in 1996-8 they did 8 - which meant one in 1,000 deliveries.

All of the women had given birth before. In two of the cases the women had been induced following the death of the fetus. Only two of the cases followed spontaneous labour and normal vaginal delivery (they do not say if the births had been speeded up); both these women had had previous terminations, and one of them had had five. These two women both needed manual removal of the placenta although it was not morbidly adherent. Seven women had a caesarean at a previous birth. The authors point out that there had been an increase in the section rate from 21% in 1992 to 23.4% from 1996 onwards - a rise of 8%. However the section rate in multips had gone up by 23%, with a similar increase in women having a repeat section.

Four of the women had caesareans for placenta praevia, and the placenta was "morbidly adherent" to the earlier scar.

In one particularly tragic case the woman had a spontaneous rupture at 30 weeks. She had had a rupture in her first pregnancy following an amniotomy using a Drew-Smythe catheter. In her second pregnancy she lost the baby after a rupture at 28 weeks. The third child - from the hysterectomy birth - is brain damaged.

All the women survived - though one died 18 months later of pre-existing heart problems. One had to have 38 units of blood and many had serious complications. One had premature ovarian failure at 39, requiring HRT.

Whereas the commonest reason for obstetric hysterectomy used to be uterine rupture (sometimes caused by rotational high forceps), or post partum haemorrhage caused by failure of the uterus to contract, the usual cause now is abnormal embedding of the placenta into the wall of the uterus (so uncontrollable haemorrhage can be caused when it is removed) following a previous caesarean section.

Women with a previous section are up to 27 times more likely to need obstetric hysterectomy than those who have had only vaginal deliveries.

AIMS Comment

This report confirms what we already knew - caesarean sections increase risk at future deliveries. However, this report covers only physical damage, not emotional damage. We have fortunately seen only a few cases at AIMS, but we know the women are devastated.

Reference

- Gould D. et al. Emergency obstetric hysterectomy - an increasing incidence. Journ. Obstet. Gynaeacol. 1999 19 580-583.

Return to top