AIMS For a better birth...

Research Roundup

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Risks of giving birth at night

A recent analysis of birth statistics from Wales confirms earlier reports that babies born at night, weekends and at holiday times have an increased perinatal mortality rate.

When babies die from asphyxia during labour and birth, these deaths are considered the most preventable, and so such deaths are an indication of the quality of care the mother has had.

The authors of the latest report looked at Welsh stillbirths and neonatal deaths 1993-5. The hour, day and month of birth was compared with those of surviving babies. Birth rates of those born after 9 pm and before 9 am, and during July and August were studied. They also looked at February and August, when new young doctors (senior house officers) start their training.

Being born at night, or in July and August, roughly doubled the risk of the baby dying. The risk also tended to go up in February and August but an independent effect could not be proved. Saturday and Sunday births were also associated with raised risk, but it was not statistically significant.

AIMS Comment

This deals only with deaths, of course, not with the near misses and brain damage that we hear about even more often. The higher risk from nights and weekends shows up in the sad cases we hear about from parents all over the country, not just Wales. Indeed one of the first question we ask of those reporting a tragedy is *"What time of day and day of week was the baby born"*? because then we are more likely to hear of junior doctors and locums who don't know what they are doing coping with emergencies. Our impression is that with midwifery staffing levels being cut and number of senior grade midwives being reduced, the problem is getting worse. The problem and the causes have been known for years. What are maternity units going to do about it?

Reference

Stewart J, et al, Numbers of deaths related to intrapartum asphyxia and timing of birth in all Wales perinatal survey, 1993-5. BMJ, 1998; 316: 657-66

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Risks of hospital antenatal care

Does seeing an obstetrician for antenatal care actually cause health problems in pregnancy?

An important study on antenatal care has not received the attention it deserves. In Scotland 97% of women get "shared care" - divided between obstetricians, GPs and midwives. A randomised study of over 1700 low risk women was set up. Half had antenatal care from GPs and midwives only (unless referred for medical reasons) and the others had obstetrician-led shared care. All, apparently, gave birth in hospital.The obstetrician-led care used more resources, since women had more clinic visits, had more admissions to hospital and more day-care in pregnancy. Women getting obstetrician care were more likely to miss their appointment at the clinic.

How about quality of care? In six cases anaemia was not treated after it was diagnosed; all happened to women having hospital led care, none in the primary care group. On the other hand the main failure of the GP/midwife group was not checking Rhesus negative women for antibodies - 20 such cases in the GP group and 3 in the obstetrician group. This could be a serious problem but the authors point out that it could be dealt with by having laboratory checks in place.

A crucial finding was that the women receiving obstetrician -led care got more complications in pregnancy - more raised blood pressure, more protein in urine, more pre-eclampsia, more hyperemesis (continued vomiting). They were less likely to have spontaneous labours and more of them were induced. A study of this size would be too small to detect significant differences in perinatal mortality Among the 834 women in the GP/midwife group there were 4 stillbirths, 2 early neonatal deaths and 9 miscarriages. In the 840 women having obstetrician care there were 3 stillbirths, 5 neonatal deaths and 15 miscarriages. This makes a total of 15 babies lost in the GP group and 23 under obstetric care. The authors conclude: "Women at low risk have little or no benefit from routine specialist antenatal visits."

AIMS Comment

This shows that GP/midwife care was at least as good as obstetrician-led care for low risk women, There are two points to watch. The checking for Rhesus factors is important. And 8% of the primary care women said they wanted to see a hospital doctor but did not, compared with 5% of the obstetrician-led group. There needs to be sensitivity to women's wishes.

The finding of more high blood pressure in the hospital group is not surprising; stress and anxiety of seeing a hospital doctor is more likely to raise blood pressure than seeing a familiar GP or midwife. But why more protein in urine and three times as much pre-eclampsia in the obstetrician group? This was not apparently caused by over-diagnosis.

The higher miscarriage rate in the obstetrician group is intriguing. We do not have proof from these small numbers, but just suppose the journey to hospital, the stress of the visit, the possibility of more hospital acquired infection from vaginal examinations, or more ultrasound examinations (not reported in the study) contributed to an increase in miscarriage rate?

Reference

Tucker JS, et al, Should obstetricians see women with normal pregnancies? A multicentre randomised controlled trial of routine antenatal care by general practitioners and midwives compared with shared care led by obstetricians, BMJ, 1996; 312: 554-9

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Long-term effects of postnatal depression

An important study by two psychologists from Cambridge looked at how children of mothers with postnatal depression behaved when they got to school compared with controls. Nearly 700 women having their first child were screened for postnatal depression at 6 weeks, and 58 depressed women and 42 controls were recruited for a long term study. They were checked again at 18 months and five years. The study looked at a number of factors, including social class, conflict between the parents, and how long and how recently the mother was depressed. Teachers were asked to rate the five year olds after they had been at school for a term. They were simply told that it was a study on healthy children.

There was more conflict between parents in the depressed Mums group. Girls' mothers had been on average depressed for longer - so daughters had longer exposure.Children of mothers who had been recently depressed were judged by teachers to be less mature, and more easily emotionally aroused. Having a recently depressed mother made boys likely to be hyperactive, especially those from lower social groups but did not affect girls. Boys from lower social class families whose mothers had been depressed were the most easily distracted and had the poorest behaviour. All the children with severe behaviour disturbance had postnatally depressed mothers.

The conclusion was that the more recently the mother had been depressed, the more immature, emotionally aroused and distractible the child - especially those from poorer families. Recent depression led to an increase in hyperactive behaviour, especially in boys.

AIMS Comment

This is a particularly useful study in the light of attitudes of society and government towards parents of children who are uncontrollable or misbehave. The current theory is that parents need labelling, blaming

and training. This research suggests that they need help and support.

The puzzle in this study is that although girls had been exposed to longer depression in mothers, they seemed to be well adjusted, not easily distracted or hyperactive and were more social. It was as if the gender differences were actually exaggerated. Could it be, as the authors ask, that the girls are simply more resilient or could this mean that they may have more problems in later life - including depression? Meanwhile for boys, especially from poorer families "*the rates of clinically disturbed behaviour are alarmingly high.*"

Reference

Sinclair D and Murray L. Effects of postnatal depression on children-s adjustment to school, Br J Psychiatry, 1998; 172: 58-63

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Hairdressers and pregnancy

Could working as a hairdresser in pregnancy damage the fetus?

A study published in 1991 which looked at mental retardation and parents' occupation found that hairdressers' children had an increased risk.(1) It was thought this might be caused by exposure to solvents in hair dyes. Because chemicals used have changed, and people are more careful about using gloves, researchers from Holland looked at what happened to children of hairdressers born 1986-88 and 1991-93. The were compared with the children of sales clerks in clothing stores.(2)Hairdressers' children born in 1986-88 were more likely to start speaking after 15 months and more likely to use sentences after 24 months than children of sales clerks, who spoke earlier However the risk of later speaking did not apply in the second period.

But when mothers were asked about seizures when the child had a fever, these were more likely to happen to hairdressers' children born in both 1986-8 and 1991-3. The risk increased in those who worked longer hours and those who worked later in pregnancy.

AIMS Comment

This study was possible because women workers are registered with their trade association in Holland, so it was possible to follow them up. We know far too little about the risks of different jobs in pregnancy here.

Please note they only asked about live-born, normal children. It tells us nothing about the risk of miscarriage or malformation.

One point to note is that the control group - shop workers are al so likely to stand a out at work . Standing up for long periods is associated with adverse outcomes in pregnancy, which is another reason why working long hours as a hairdresser late in pregnancy may not be ideal.It is not just hairdressers who are

exposed to solvents; they are used in many other occupations and in the home, and will be inhaled as well as absorbed through the skin.

Reference

Kersemaekers, et al, Neurodevelopment in offspring of hairdressers, Dev Med Child Neurol, 1997; 30: 358-62

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More genital abnormalities in boys

There seems to be an international increase in hypospadias in boys. This is when the opening of the urethra comes not at the end of penis but on the underside of it, further down in the shaft. In Atlanta the incidence has doubled between 1968 and 1993, and European countries have also reported a rise. Exposure to hormones is one possible cause, but exposure to oral contraceptives in pregnancy could not account for such a large increase. Chemicals in the environment, such as pesticides, which could have an oestrogen effect are suggested as a possible risk factor.

AIMS Comment

And just because there is no obvious and immediate effect on girls, it does not mean that the substance is not harming their development too.

Reference

Dolk, H, Rise in prevalence of hypospadias, Lancet, 1998; 351: 770

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