Background (1) In 1999, the UK DOH Teenage Pregnancy Strategy Plan pledged to reduce the pregnancy rate by 50% in < 18 yrs old by 2010. (2) In 2009, the UK teenage pregnancy rate was 38.3 per 1,000 compared to 54.3 per 1,000 in Barking & Dagenham (high-risk area served by the hospital).

Aim This retrospective cohort study reviewed all viable teenage pregnancies from Jan 1, 2010–Dec 31, 2010.

Method Data were obtained from the Labour Ward, Birth Notification and Operating Theatre Registries.

Results There were 257 teenagers with 260 viable babies > 28 weeks gestation. This included primigravida (230/257) = 89.49% and multiparous (27/257) = 10.51%. The ages ranges from 14–19 yrs (mean = 18.29 yrs). Ten (10/257) 3.89% were < 16 yrs old. There were Instrumental deliveries (29/257) = 11.28%, Caesarean section (36/257) = 14.01%, and Vaginal deliveries (192/257) = 74.71%. The mean fetal birth weights were – Instrumental 3.389 kg +/- SD 0.468 kg, Caesarean 3.106 kg +/- SD 0.752 kg; and Vaginal Delivery 3.117 kg +/- SD 0.501 kg.

Maternal Morbidity Third degree tear (n = 3), Pre-eclampsia (n = 12) & PHF > 1 litre (n = 4)

Fetal Morbidity SCBU admission (n = 7), Stillbirth (n = 3) & Shoulder dystocia (n = 2)

Discussion During 1999–2009 the teenage pregnancy rate fell by only 13.5% in spite of the DOH Teenage Pregnancy Strategy Plan. 1. In this cohort the caesarean rate was lower 14.01% vs 24%, the vaginal delivery higher 74.71% vs 65% but the instrumental was similar 11.28% vs 10% compared to the UK average (Caesarean Section Sentinel Audit). 2. There was a dedicated Teenage Pregnancy Midwifery Team providing continuity of care. 3. There were 10.51% (27/257) multiparous teenagers thus contraceptive advice remains crucial, as UK has the highest teenage pregnancy rate in Europe.

Background Despite both Ireland and the United Kingdom providing free maternity care to all women, adverse fetal and maternal outcomes remain closely linked to social disadvantage and lack of support during pregnancy. A European survey found 42.4% of respondents had limited functional health literacy, closely linked to economic deprivation. Written information remains the main medium of communication. Digital media use is widespread across all socio-economic groups. Healthcare communication in pregnancy should focus on digital communication channels.


INVESTIGATION OF NEONATAL ENCEPHALOPATHY: THE LOST PLACENTAL ‘BLACK BOX’

Background After an aeroplane crash, recovery of the ‘black box’ is a high priority for investigators; analysis of recorded parameters frequently identifies cause or contributing factors. The placenta likewise provides an invaluable record of the pre-‘crash’ period in hypoxic ischaemic encephalopathy (HIE); its examination often identifies significant factors such as inflammation or vasculopathy.

Objective To determine the frequency of histopathologic placental examination and chorioamnionitis in a high-risk population of encephalopathic newborns.

Methods We studied neonates ≥ 36 weeks gestation admitted with HIE to three tertiary-level UK centres between 01/07/06 and 30/06/11. We assessed if placental histopathological examination was carried out and if there was evidence of chorioamnionitis and/ or funisitis.

Results 305 infants were admitted with HIE in the 5-year study period. Placental data were unavailable for 140 outborn infants. Only 50/165 (30%) inborn babies had placenta submitted to pathology. Histopathological examination confirmed chorioamnionitis and/or funisitis in 16/50 (32%) cases.

REFERENCE 1 Norwood & Cater, ‘V Venkatesh, ‘N Turner, ‘P Clarke. ‘Norfolk and Norwich University Hospitals NHS Foundation Trust, Norwich, UK; ‘Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK; ‘Liverpool Women’s Hospital NHS Foundation Trust, Liverpool, UK
Abstracts

Conclusion Placental examination serves several vital roles in babies born with suspected HIE: it defines pathophysiology, provides important prognostic information regarding future neurodevelopmental outcome, and shows mitigating factors of medicolegal relevance to causation of brain injury. Intrapartum infection and chorioamnionitis are associated with poor neonatal outcomes including cerebral palsy. Only 30% placentas were examined in our tertiary centres, yet those examinations showed a high incidence of chorioamnionitis. The low rate of placenta being submitted for examination in neonates born depressed, coupled with the high incidence of proven chorioamnionitis in those submitted, is of great concern.

Objectives To study the association between travel time from home to hospital on intrapartum stillbirth and neonatal mortality. Population All births to women who were resident in Wales between 1995 – 2009 (n = 498,052).

Outcome Measures Intrapartum stillbirth, early and late neonatal mortality.

Methods We calculated the travel time to all hospitals with maternity services based on the grid reference for postcode of mother’s place of residence at the time of birth. We used logistic regression to obtain odds ratios for the association between travel time and outcome, adjusted for maternal age, parity, Townsend score for social deprivation and urban/rural location.

Results There were 412,827 singleton births during the study period. The intrapartum stillbirth rate was 0.3 per 1,000 (n = 498,052).

Conclusion Although the risk of adverse birth outcomes is increased with longer travel times to the place of birth this is not explained by distance to the nearest hospital with maternity services.

Conclusion These findings provide new evidence that maternal stress plays a role in the aetiology of gastrochisis, possibly through increased production of corticosteroids that have been shown to be teratogenic in animal models.

REFERENCE

Introduction Preterm birth is the leading cause of neonatal morbidity and is associated with increased rates of operative delivery. Little is known about the impact of preterm caesarean section on mode of delivery and outcome in subsequent pregnancies.

Aim To determine the impact of preterm caesarean section in primips and multips on mode of delivery and obstetric outcome in subsequent pregnancies.

Study design We designed a retrospective review of all deliveries in the Rotunda Hospital from January 1st 2000 to December 31st 2005. All preterm deliveries (less than 37 weeks gestation) were identified and those requiring caesarean delivery formed the study cohort. All cases with previous operative deliveries were excluded and the remaining cases were reviewed for outcome in subsequent pregnancies.

Results There were 879 preterm caesarean sections during the study period representing 6.6% of all sections over the study period (879/13336).

In total 672 (76.4%) met the inclusion criteria and of these 408 (60.8%) went on to have a further delivery in the hospital. Preterm caesarean section was associated with a vaginal delivery rate of 52 to 44 percent in subsequent pregnancies. There is associated increased neonatal morbidity contributed to primarily by the high incidence of preterm birth in subsequent pregnancies (22.34%). There were also 3 neonatal deaths in subsequent pregnancies in the cohort.

The overall classical caesarean section rate was six percent and there was one caesarean hysterectomy in our cohort.

Conclusions Preterm caesarean section is associated with adverse fetal outcome in subsequent pregnancies.

Introduction Maternal stress is associated with increased risk of spina bifida and anencephaly. We investigated the effect of major stressful life events in the first trimester on risk of gastrochisis, accounting for the mediatory effects of social support and known risk factors such as cigarette smoking, low body mass index and poor nutrition.

Method We analysed data from an incident case control study of pregnant women resident in five UK regions between 01.07.2007 and 28.02.2010. Three controls were recruited for each case. Major stressful life events and social support were assessed using questions from several validated assessment tools, during interviews in the antenatal period. Logistic regression was used to obtain odds ratios for the association between maternal stress and risk of gastrochisis.

Results During the study period, 124 gastrochisis cases were identified by collaborating centres. 75% of cases (n = 91) and 70% of controls (n = 217) were recruited. In the multivariable model including social class of the mother, cigarette smoking, alcohol consumption, body mass index, folic acid and fruit and vegetable consumption, major stressful life events had an independent effect on the risk of gastrochisis (aOR 4.9 95% CI 1.2.19.4). Moving house in first trimester was also an independent risk factor (aOR 4.9 95% CI 1.7.19.9). Lack of social support was found to be a partial mediator for stress.

Conclusion These findings provide new evidence that maternal stress plays a role in the aetiology of gastrochisis, possibly through increased production of corticosteroids that have been shown to be teratogenic in animal models.

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