

O-205

PARENTAL CARDIOVASCULAR MORBIDITY IN FAMILIES WITH A PRETERM CHILD, A NATIONAL REGISTER STUDY

¹P Hovi, ¹S Turkka, ¹SPK Näsänen-Gilmore, ²M Väärämäki, ³M Gissler, ⁴A Pouta, ⁵E Kajantie. ¹Department of Chronic Disease Prevention, National Institute for Health and Welfare (THL), Helsinki, Finland; ²Department of Obstetrics and Gynecology, Oulu University Hospital, Oulu, Finland; ³Information Department, National Institute for Health and Welfare, Helsinki, Finland; ⁴Department of Children Young People and Families, National Institute for Health and Welfare, Oulu, Finland; ⁵Department of Chronic Disease Prevention, National Institute for Health and Welfare, Helsinki, Finland

10.1136/archdischild-2014-307384.275

Background Prematurity is associated with a higher incidence of hypertension and glucose metabolism during childhood and young adulthood. This may be due to circumstances during fetal and early postnatal life or to confounders such as unhealthy lifestyle in childhood home. The confounder explanation would gain support if preterm birth would predict father’s cardiovascular disease (CVD).

Objective We hypothesised that preterm birth would predict cardiovascular disease in both parents.

Design/methods Pregnancy data came from Finnish Medical Birth Register. During Jan 1, 1987 and Sep 30, 1990, we included the first singleton birth for each of the 196,427 mothers. National Population Register Centre tracked the fathers, 3,048 remained missing (and 27 mothers).

We obtained Hospital Discharge Register data from Aug, 1969, and non-primary care out-patient visit data from Sep 1986, both until 31 Dec 2012. The first occasion of CVD was when the ICD-9 and ICD-10 indicated coronary heart disease (CHD) or stroke.

We utilised Cox regression for proportional hazards to analyse the effect of GA group on CVD in mothers and fathers separately.

Results In mothers, preterm birth predicted CVD with Hazard Ratios (HRs) increasing up to 2.12 with shorter gestation (Table 1). Among the fathers, those whose baby had been born preterm were clearly not at higher risk for a CVD diagnosis (Table 2).

Abstract O-205 Table 1 Mother’s CVD diagnosis by index child’s gestational age group

Mother's CVD diagnosis by index child's gestational age group					
Group*	HR	95% CI for HR		n	CVD
<28	2.00	1.36	2.94	417	26
28 to 31	2.12	1.61	2.79	809	52
32 to 33	1.61	1.22	2.13	954	50
34 to 36	1.55	1.38	1.74	6540	303
37 to 38	1.26	1.18	1.34	32996	1272
39 to 41	1.00			143499	4127
>41	0.95	0.83	1.09	8587	213
Missing	0.98	0.78	1.23	2598	74
Total				196400	6117

*full weeks of gestational age

Conclusions Since preterm birth predicted CVD only in mothers and not fathers, the higher CVD risk factors in those born preterm are unlikely to be mediated by unhealthy habits learnt from the parents.

Abstract O-205 Table 2 Father’s CVD diagnosis by index child’s gestational age group

Father's CVD diagnosis by index child's gestational age group					
Group*	HR	95% CI for HR		n	CVD
<28	0.71	0.49	1.03	347	28
28 to 31	0.94	0.75	1.19	759	72
32 to 33	0.67	0.53	0.84	917	73
34 to 36	0.97	0.89	1.05	6353	599
37 to 38	0.91	0.88	0.95	32490	2936
39 to 41	1.00			141690	12094
>41	1.18	1.09	1.27	8440	683
Missing	0.94	0.82	1.07	2383	215
Total				193379	16700

*full weeks of gestational age

O-206

POORER COGNITIVE AND GROSS MOTOR OUTCOME AT AGE 2.5 YEARS AFTER INTRAUTERINE EXPOSURE TO SSRI. PROCEEDINGS FROM THE DUTCH SMOK TRIAL

¹CN van der Veere, ²NKS de Vries, ³AF Bos. ¹General Pediatrics, Beatrix Children’s Hospital/University Medical Center Groningen, Groningen, Netherlands; ²General Pediatrics, Medical Center Leeuwarden, Leeuwarden, Netherlands; ³Neonatology, Beatrix Children’s Hospital/University Medical Center Groningen, Groningen, Netherlands

10.1136/archdischild-2014-307384.276

Background Prescription rates of antidepressant medication during pregnancy range from 2.0% in the Netherlands to 13.4% in the USA. Concern has risen about the long-term effects of prenatal exposure to selective serotonin reuptake inhibitors (SSRIs) on the developing child.

Aim Determine the effect of prenatal exposure to SSRIs on neurodevelopment at 2.5 years.

Methods During pregnancy, 107 mother-infant pairs were included, of whom 63 were SSRI-exposed (SSRI-group) and 44 non-exposed (non SSRI). In both groups maternal depression and anxiety were measured using questionnaires (Beck Depression Inventory (BDI) and Spielberger’s State Trait Anxiety Inventory (STAI), respectively).

At age 2.5 years 102 infants were tested using the Bailey Scales of Infant Development 3th edition (cognitive, fine motor and gross motor scales). Scaled scores (SS) were used for statistical analysis.

Abstract O-206 Table 1

	SSRI group	Non SSRI group	Adjusted STAI	Adjusted BDI
	SS mean ±SD	SS mean ± SD	p	p
Cognition	9.0 ± 1.4	9.9 ± 1.7	0.001	0.004
Fine motor	10.2 ± 2.4	10.6 ± 2.2	NS	NS
Gross motor	7.9 ± 2.2	9.1 ± 2.5	0.036	0.003

Results

Conclusions SSRI-exposed children perform significantly worse on the cognitive and gross motor scale of the BSID-III, independent of maternal depression, anxiety, education, smoking and alcohol use during pregnancy.

O-207

THE STATUS OF EARLY CHILDHOOD DEVELOPMENT OF "LEFT-BEHIND CHILDREN": A CROSS-SECTIONAL SURVEY IN RURAL CHINA

¹H Guan, ¹XW Tao, ¹ZY Fan, ²YR Zhao. ¹Early Childhood Development, Capital Institute of Pediatrics, Beijing, China; ²Department of Developing Pediatric, Shengjing Hospital China Medical University, Shenyang, China

10.1136/archdischild-2014-307384.277

Objective Approximately 58 million of children living in rural areas in China have been left behind after their parents migrated to cities to find work. The impacts of parental migration on the early development of left-behind children (LBC) are uncertain. We conducted a preliminary cross-sectional survey to investigate the prevalence of these left-behind children, their status of early childhood development and associated risk factors.

Methods A total of 1107 children were enrolled from two counties in Anhui province, China. Their caregivers completed questionnaires on demographics, the Early Childhood Development Questionnaire and the Parenting Self-efficacy Scale.

Results The estimated prevalence of left-behind children in the area was 86.6% (959/1107), comprising 30.8% (341/1107) and 55.8% (618/1107) children as a result of migration of either parent or both parents, respectively. The duration of breastfeeding for LBC was significant lower than those staying with mothers (8.74 vs. 10.14; $p < 0.01$). LBC had fewer reading books than non-left-behind children (NLBC) ($p < 0.05$). LBC also showed fewer times of physical check and higher case rate of diarrhoea in the last two weeks than NLBC. Male LBC who were fostered by caregivers with lower levels of parenting efficacy, and came from poorer families with less social support, experienced more mental health problems than other children.

Conclusions The study confirmed some negative outcomes for children who were left-behind in their early childhood. As the huge population proportion of LBC in rural China, more research on intervention strategies to improve the early development of LBC is urgently needed.

O-208

RANDOMISED CONTROLLED TRIAL OF DAY CARE VERSUS HOSPITAL CARE OF SEVERE CHILDHOOD PNEUMONIA AND SEVERE MALNUTRITION IN DHAKA, BANGLADESGH

¹H Ashraf, ¹NH Alam, ²N Gyr. ¹Centre for Nutrition and Food Security, International Centre for Diarrhoeal Disease Research Bangladesh, Dhaka, Bangladesh; ²Faculty of Medicine, University of Basel, Basel, Switzerland

10.1136/archdischild-2014-307384.278

Background and aims Management of severe pneumonia and malnutrition relies on hospital-based treatment but practical barriers often prevent children in areas with highest disease burden from receiving hospital care. A RCT compared clinical and cost of Day Care Approach (DCA) of management with that of hospital management.

Methods Children aged 2–59 months with severe pneumonia with severe malnutrition received either DCA at outpatient clinic with antibiotics, micronutrients, diet and supportive treatment from 08:00–17:00 daily, while mothers were educated on continuation of care at home, or hospital care with similar 24-hours treatment.

Results Four hundred seventy children aged 12.2 (8.8) months were equally assigned randomly to either DCA or hospital care, 13% had hepatomegaly and 11% had hypoxemia. The durations of day care and hospital were 7.9 (5.5) and 7.1 (3.1) days, respectively. Successful management was possible for 184/235 [78.3% (95% CI 72.6–83.1%)] in DCA and 201/235 [85.5% (95% CI 80.5–89.5%)] in hospital. Thirty-six [15.3% (95% CI 11.3–20.5%)] in DCA and 22 [9.4% (95% CI 6.3–13.8%)] in hospital required referral to hospitals. There were no deaths among DCA, however, 2 [0.9% (95% CI 0.2–3.0%)] died in hospital. The average cost of treatment per episode per child was 165 US\$ for DCA and 256 US\$ for hospital.

Conclusions Severe pneumonia with severe malnutrition can be treated successfully and safely at reduced cost by DCA, but as effectively as hospital care, which can have an enormous impact in countries where recourses are scarce and hospital beds are limited for inpatient treatment.

ESPNIC – Young Investigators Presentations

O-209

CONTINUOUS INCISIONAL LIDOCAINE INFUSION IN PAEDIATRIC PATIENTS FOLLOWING OPEN HEART SURGERY

B Toledo, S Fernández, S Mencía, R González, E Sánchez, J López-Herce. *Pediatric Intensive Care Unit, Hospital General Universitario Gregorio Marañón, Madrid, Spain*

10.1136/archdischild-2014-307384.279

Study objective To evaluate the efficacy of local incisional lidocaine infusion after heart surgery.

Methods Observational prospective study including post cardiac surgery children in whom a 0,5% lidocaine elastomer was intra-operatively placed within the surgical wound. Lidocaine doses and plasma levels 48 h after administration, adverse effects, additional analgesic or sedative drugs and analgesia and sedation score were registered. All patients received intravenous metamizol and paracetamol.

Results 105 patients were analysed. Median age was 66 months, with 21% of patients under 2 years of age. The most frequent surgical interventions were: Fontan surgery (26.2%), atrial septal defects (20.4%) and ventricular septal defects (10.7%).

Median lidocaine administration duration was 58 h. 52.4% received fentanyl infusion (mean dose 1 mcg/kg/h, mean duration 24 h), 18.1% received midazolam infusion (1.5 mcg/kg/h, 8 h) and 12% received propofol (1.5 mg/kg/h, 4 h). Mean comfort score was 21.8 points and mean analgesia score was 1.9 (62% of patients required additional analgesia).

Fentanyl infusion was less often needed in patients over 2 years old than in younger patients (45.8% vs. 77.3%; $p = 0.015$). Midazolam infusion was also less often required in patients over 2 years old (13.3% vs 36.4%; $p = 0.025$).

Lidocaine plasma levels were recorded 48 h after administration in 66 patients, 46% ($n = 31$) were within therapeutic range (1.4–5 mcg/ml). No important side – effects attributable to lidocaine were observed.

Conclusions Incisional analgesia with lidocaine is safe and effective after cardiac surgery. Children over 2 years of age require less additional analgesia and sedation.