

Results The Shirodkar cerclage produced a significantly greater MGA at delivery (36.3 weeks), compared to both McDonald (33.5 weeks; $p = 0.004$) and transabdominal cerclage (33.3 weeks; $p = 0.007$). Elective insertion of Shirodkar, McDonald and Transabdominal cerclage was carried out in 70, 37, 25 women respectively. These produced success rates of 81.4%, 70.3% and 72% (Shirodkar vs McDonald $p = 0.226$, Shirodkar vs Transabdominal $p = 0.393$). Ultrasound-indicated sutures were placed in 48 women (Shirodkar $n = 24$, McDonald $n = 24$). The success rates were 92.7% and 66.7% respectively, however these were not significantly different ($p = 0.0723$).

Conclusion These results demonstrate consistent rates in births greater than 34 weeks gestation following insertion of cervical cerclage. Although Shirodkar cerclage appears preferable in elective and ultrasound-indicated procedures, prospective randomised trials such as MAVRIC¹ need to be completed to confirm this.

REFERENCE

1. <http://www.medscinet.net/mavric/default.aspx>

PP.29 THE PERSONAL AND PROFESSIONAL IMPACT OF STILLBIRTH ON CONSULTANT OBSTETRICIANS

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¹D Nuzum, ²S Meaney, ¹K O'Donoghue. ¹Anu Research Centre, Department of Obstetrics & Gynaecology, University College Cork, Cork, Ireland; ²National Perinatal Epidemiology Centre, University College Cork, Cork, Ireland

Objective Stillbirth remains amongst the most challenging areas in obstetric practise. In Ireland, consultant obstetricians are ultimately responsible for care provided to mothers following stillbirth. This study explores the impact of stillbirth on consultants working in an Irish tertiary maternity hospital (9,000 births per annum) where the stillbirth rate is 4.6/1000.

Study design Semi-structured qualitative interviews lasting 30–60 minutes were conducted in 2012 with a sample of 8 consultant obstetricians and gynaecologists. The study explored how consultants care for parents following stillbirth and the impact of stillbirth on them personally and professionally. The data were analysed using Interpretative Phenomenological Analysis.

Results Stillbirth was identified as one of the most difficult experiences for most consultants. Most consultants described it as amongst 'the most devastating news'. Two felt stillbirth was not the worst outcome. The human response and the weight of responsibility were the dominant personal and professional themes. All felt that bereaved parents should receive direct care from a consultant. The possibility of a medico-legal challenge was a significant factor—mostly for those who are primarily gynaecologists resulting in the question "what have I missed?". The personal impact of stillbirth is considerable: most participants were emotional during interview.

Conclusion Despite the impact and importance of stillbirth care, none of the obstetricians received any formal training in perinatal bereavement care. This study highlights a gap in training and the impact of stillbirth on obstetricians professionally and personally. Medico-legal concerns following stillbirth potentially impact on the depth of care and warrants further research.

PP.30 THE EFFECT OF MATERNAL SUBCLINICAL HYPOTHYROIDISM ON THE IQ OF CHILDREN

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N Murphy, M Diviney, J Donnelly, S Cooley, C Kirkham, A Foran, F Breathnach, F Malone, M Geary. Rotunda Hospital, Dublin, Ireland

In our practise, pregnant women are not routinely screened or treated for subclinical hypothyroidism (SCH) Our objective was to compare the IQ of children whose mothers had been diagnosed with SCH antenatally with closely matched controls.

In a previous study we screened 1000 healthy nulliparous patients for SCH. Those with overt hypothyroidism were treated, whereas those with SCH were contacted postnatally for paediatric follow-up. SCH (defined as reduced free T4 with normal TSH, or normal free T4 with raised TSH) was found in 4.6% ($n = 46$) All children underwent a formal neurodevelopmental assessment at age 7 to 8 years by a psychologist blinded to the original maternal thyroid status.

From the cases, 23 mothers agreed to assessment of their children as well as 47 controls. The children in the control group had higher mean scores than those in the case group across Verbal Comprehension Intelligence, Perceptual Reasoning Intelligence, Working Memory Intelligence, Processing Speed Intelligence and Full Scale IQ.

Statistical testing confirmed a statistically significant difference in IQ between the groups. This had a 95% confidence interval (.144, 10.330)

Our results highlight significant differences in IQ of children of mothers who had unrecognised SCH during pregnancy. Our study size and design prevents us from making statements on causation but our data suggests significant public health implications in terms of routine thyroid screening in pregnancy. The results of prospective intervention trials to address a causative association will be vital to address this issue.

PP.31 RELATIONSHIP BETWEEN BIRTH WEIGHT AND NUTRITIONAL STATUS IN PRESCHOOL CHILDREN

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G Aparício, M Cunha, M Ferreira. Polytechnic Institute of Viseu-Health School - CIGDETS, Viseu, Portugal

Background The intrauterine period has been considered as a very sensitive period in which nutritional and/or hormones changes appear to play an essential role in the subsequent control of body weight.

Objectives Classify the nutritional status of children, analysing its relationship with birth weight.

Methods Cross-sectional and observational study comprising 792 preschool children, average age 4.39 years old ($SD = 0.911$), residents in a centre region of Portugal. Children's anthropometric measurement was obtained and the classification was based on the NCHS reference (CDC, 2000) and the birth weight classification on the WHO (2001).

Results Globally 66% had normal weight, 31.3% were overweight (including 12.4% obesity) and 2.7% low-weight but the differences shown to be independent from age and gender of children. 91.9% of girls and 87.1% of boys was born with appropriate weight for gestational age while 6.5% and 3.9% were born respectively light-weight and large for gestational age.

The association between birth weight and overweight revealed that 7.4% of children with overweight were born large. The relationship was statistically significant ($\chi^2 = 21.130$, $p = 0.002$), implying that a higher birth weight was associated with increased risk of overweight in childhood with a probability greater than 8 times ($OR = 8.486$, 95% $CI = 2.443$ to 29.483) ($\chi^2 = 13.636$, $p = 0.000$).

Conclusion The results suggest significant effect of birth weight on the development of later overweight. So, children born with high weight require further monitoring and promotion of an adequate dietary pattern, in order to control early its nutritional status.

PP.32 SECOND-TRIMESTER MISCARRIAGE; RISK FACTORS FROM A LARGE PROSPECTIVE COHORT

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^{1,2}A Morris, ^{2,3}J Lutomski, ^{1,2}A Khashan, ^{1,2}L Kenny, ^{1,2}K O'Donoghue. ¹Anu Research Centre, Department of Obstetrics and Gynaecology, University College Cork, Cork, Ireland; ²Cork University Maternity Hospital, Cork, Ireland; ³National Perinatal Epidemiology Centre, University College Cork, Cork, Ireland

In the UK and Ireland, second-trimester miscarriage is defined as pregnancy loss after the 14th and before the 24th week of gestation¹. Infection, cervical insufficiency, uterine malformations, gene polymorphisms, fetal/placental anomalies and genetic/acquired thrombophilias are known risk factors¹; however the literature on this topic is limited. Thus, this study aimed to examine risk factors for second-trimester miscarriage.

A nested case-control study was performed using data from the multicentre, prospective Screening for Pregnancy Endpoints (SCOPE) study. Within the SCOPE cohort of 3,531 healthy, nulliparous women with singleton pregnancies, we identified cases of second-trimester miscarriage. For each case, 5 controls were selected from the SCOPE cohort; controls were matched according to centre of recruitment and age. Descriptive statistics were performed and unadjusted odds ratios were derived to assess risk factors.

8 women experienced a second-trimester miscarriage (2.3 per 1000 pregnancies); mean age was 28.6 years (SD: 6.8). On average, miscarriage occurred at 20⁺⁵ (SD: 20 days). An increased, though insignificant, risk was observed amongst women whose mothers had a preterm birth (OR: 4.11; 95% CI 0.56 – 29.96), maternal alcohol consumption in the first trimester (OR: 2.55, 95% CI 0.47 – 10.76) or vaginal bleeding in the first trimester (OR: 2.4; 95% CI 0.47 – 12.22).

Covariates of interest did not confer a significantly increased risk of second-trimester miscarriage, though our analysis was limited by the low incidence of second-trimester miscarriage. The understanding of second-trimester miscarriage and associated risk factors would benefit from prospective case-control studies that involve higher numbers of women.

REFERENCE

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PP33 UNCOVERING THE COMPLEX RELATIONSHIPS BETWEEN MATERNAL AGE, ANTENATAL DETECTION RATES, AND PREGNANCY OUTCOME IN CASES OF DOWN SYNDROME

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¹CF Jordan, ²LE Berry, ³JLS Budd, ⁴HA Mousa, ⁵ES Draper. ¹Dept. Obstetrics & Gynaecology, University Hospitals of Leicester NHS Trust, Leicester, UK; ²East Midlands & South Yorkshire Congenital Anomaly Register, Dept. Health Sciences, University of Leicester, Leicester, UK

Background Screening for Down Syndrome (DS) must be offered to all pregnant women in the UK, irrespective of age, between 10⁺⁰ and 20⁺⁰ weeks gestation. Current targets require antenatal detection rates between 75% and 90% of screened women.

Aim To use data from the East Midlands & South Yorkshire Congenital Anomaly Register (EMSYCAR) to explore the complex and changing relationships between antenatal diagnosis of DS, increasing maternal age and changing attitudes to termination over fifteen years.

Methods 1805 cases of DS were identified in 922,216 births between 1998 and 2011, an overall prevalence of 19.57/10,000. Cases were analysed by maternal age and pregnancy outcome, with mean gestational age at diagnosis calculated for each age group by cohort year.

Results 1025 DS cases (56.8%) were diagnosed antenatally, with the mean gestational age at diagnosis decreasing from 32 weeks in 1998/2000 to 20 in 2009/11. However, 49.1% (C.I. 42.1, 56.0) of DS cases in mothers under 25 were diagnosed antenatally, compared with 62.5% (C.I. 59.4, 65.6) for mothers over 35. While termination rates fell over time, they also differed significantly between age groups. 67.0% (C.I. 57.0, 75.9) of mothers <25 terminated an affected pregnancy compared with 83.7% (C.I. 80.5, 86.5) of those aged >34. Termination rates over time fell more abruptly among the youngest mothers.

Conclusion Despite known variation in birth prevalence of DS with maternal age, more research is needed to determine the role of maternal age in choices concerning screening uptake, consequent antenatal detection and subsequent decisions affecting pregnancy outcome.

PP34 IMPACT OF MATERNAL OBESITY ON PERINATAL OUTCOME IN IUGR – THE MULTICENTRE PROSPECTIVE PORTO TRIAL

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F Cody, J Unterscheider, S Daly, MP Geary, MM Kennelly, FM McAuliffe, K O'Donoghue, A Hunter, JJ Morrison, G Burke, P Dicker, EC Tully, FD Malone. *Perinatal Ireland Research Consortium, Dublin, Ireland*

Objective The objective of this analysis, as part of the multicentre prospective PORTO Trial, was to study the effect of increasing maternal BMI on perinatal outcome in IUGR pregnancies.

Study design The PORTO Trial recruited 1,118 consecutive ultrasound-dated singleton IUGR pregnancies, defined as EFW < 10th centile. Maternal BMI was recorded at booking and divided into 4 subcategories. Perinatal outcomes were documented for all study participants.

Results Of the 1,076 recruited patients with complete records, 693 (64%) were of normal weight (BMI < 25), 258 (24%) were overweight (BMI 25–30), 93 (9%) were obese class I (BMI 30–35) and 32 (3%) were obese class II (BMI 35–40). Obese patients have significantly lower prospect of vaginal delivery and their offspring are at increased risk of adverse outcome (Table 1).

Conclusion Maternal obesity has a significant adverse impact on pregnancy outcomes with increased risk of Caesarean delivery, coupled with an increased perinatal morbidity and NICU admission rate.

Abstract PP34 Table 1 Outcome for BMI Categories

	Normal	Overweight	Obese Class I	Obese Class II	p-value*
Mean GA at delivery (weeks)	38.1	37.5	37.2	35.5	<0.0001
Birthweight (g)	2543	2473	2414	1989	0.0055
Mode of Delivery					
CS	131 (22%)	65 (31%)	26 (38%)	9 (47%)	0.0003
Instrumental	75 (13%)	20 (9%)	6 (9%)	9 (47%)	
NVD	377 (65%)	122 (59%)	36 (53%)	1 (5%)	
Composite Morbidity	22 (3%)	20 (8%)	8 (9%)	7 (22%)	<0.0001
Perinatal Mortality	5 (<1%)	2 (<1%)	2 (2%)	1 (3%)	0.3391
NICU Admission	173 (25%)	77 (30%)	36 (39%)	15 (37%)	0.0031

PP35 A FEASIBILITY STUDY FOR A RANDOMISED CONTROLLED TRIAL OF MANAGEMENT OF REDUCED FETAL MOVEMENTS AFTER 36 WEEKS GESTATION

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¹G Bernatavicius, ²S Roberts, ¹A Garrod, ^{1,3}MK Whitworth, ^{1,3}ED Johnstone, ^{1,3}JC Gillham, ⁴T Lavender, ^{1,3}AEP Heazell. ¹Maternal and Fetal Health Research Centre, Institute of Human Development, University of Manchester, Manchester, UK; ²Centre for Biostatistics, Institute of Population Health, University of Manchester, Manchester, UK; ³St Mary's Hospital, Oxford Road, Manchester, UK; ⁴School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK

Objective Poor perinatal outcome after reduced fetal movements (RFM) is related to smaller fetal size on ultrasound scan, oligohydramnios and lower human placental lactogen (hPL) in maternal serum. We performed a feasibility study for an RCT of RFM management based on these parameters.

Methods Women with RFM ≥36 weeks gestation were invited to participate in a RCT comparing standard management (ultrasound