Objective This longitudinal study examined changes in maternal weight and Body Mass Index (BMI) in the early pregnancy between a woman's first and second baby.
Methods We studied women more than 18 years old with a singleton pregnancy who delivered their first baby weighing ≥ 500 grammes in 2009 and who re-attended for antenatal care with a subsequent ongoing pregnancy before January 1st 2012. Maternal weight and height were measured accurately before 18 weeks gestation in both pregnancies and BMI was calculated.
Results Of the 3284 primigravidas, the mean weight at the first antenatal visit was 66.4 kg (SD 12.7). The mean BMI was 24.5 kg/m^2 (SD 4.6), and 11.3% (n = 370) were obese. Of these 3284 women, 1220(37.1%) re-attended for antenatal care before 2012 after confirmation of an ongoing pregnancy. Of the 1220 women who re-attended, 788 (64.6%) had gained weight (mean 4.6 kg SD 3.9), 402(33.0%) had lost weight (mean 3.0 kgs SD 2.9) and 30 (2.4%) had maintained their weight. As a result, 20.2% (n = 247) were now in a higher BMI category and 4.8% (n = 58) had become obese; 5.8% (n = 71) were in a lower BMI category and 1.2% (n = 15) were no longer obese. These early pregnancy weight changes were influenced by maternal age, but not by the duration of the interpregnancy interval.
Conclusion As two thirds of women gain weight in the short-term after delivery of their first baby, we recommend that the advice women get before and during pregnancy needs to be reinforced postpartum.

PP.26 SUSTAINABLE VOLUNTEERING AND ITS EFFECT ON UGANDAN STILLBIRTH RATES

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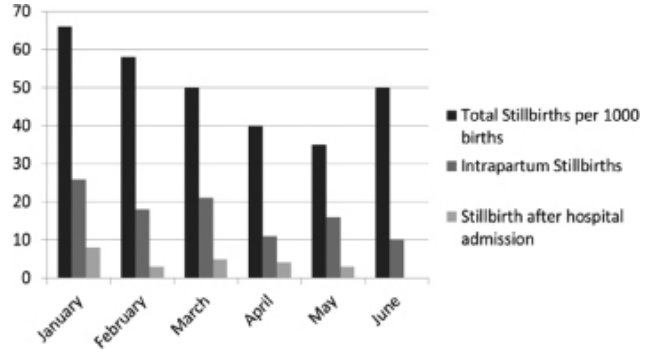
Background The Ugandan Maternal and Newborn Hub is a THET funded initiative focused on implementing Sustainable Volunteering Projects (SVPs) to improve maternal and newborn health. Annually, there are 2·65 million stillbirths worldwide and almost 90% occur in low-resource settings. Up to 70% of stillbirths occur in the intrapartum period; frequently these are associated with suboptimal care.
Methods Through a SVP, from January to June 2012, we undertook a quality improvement project aiming to reduce intrapartum stillbirths at Mbarara Hospital in Uganda. Our quality improvements included regular audit presentations, implementation of a labour ward board and skills and drills training. We classified suboptimal care into types of delay using Thaddeus & Maine Three Delay Model.
Results In this 6 months period, there were 102 intrapartum stillbirths. Most stillbirths were singleton pregnancies (99%) with a mean maternal age of 24 years and a mean parity of 2. 34% of women were unbooked. Suboptimal factors contributing to intrapartum stillbirths were identified in 86.4% of cases, 22% were related to care whilst admitted. Intrapartum stillbirths occurring after hospital admission reduced after introduction of quality improvement measures: see table.
Discussion Basic and comprehensive emergency obstetric care is an important intervention to reduce intrapartum stillbirths in the developing world. SVPs are an effective way of individualising quality improvement measures and improving outcomes.



Abstract PP.26 Table Stillbirths Figures Mbarara Hospital 2012

PP.27 MICRO-VASCULAR DISEASE AT BOOKING IN T1DM AND ASSOCIATED RISK OF DEVELOPING PRE-ECLAMPSIA

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Background and Aims Micro-vascular disease affects the majority of T1DM patients and is directly related to both duration and glycemic control of diabetes. The aim of this study is to identify the association of micro-vascular disease at booking and subsequent risk of developing pre-eclampsia during pregnancy.
Methods Retrospective cohort study of women with T1DM (n = 37) on continuous subcutaneous insulin infusions booked at Guy's & St Thomas' Hospital between November 2010 and April 2012. Micro-vascular disease at booking was, defined as nephropathy or/and retinopathy at booking.
Results The prevalence of micro-vascular disease at booking was 54.1% (n = 20). No significant difference were seen in age (33.5 years vs 35.0 years; p = 0.28), HbA1c (7.5 vs 6.9; p = 0.11), length of diabetes (16.0 years versus 23.0 years; p = 0.14) compared to women without micro-vascular disease.

Presence of micro-vascular disease was significantly associated with the pre-eclampsia (55.0% vs 17.6%; p = 0.02; unadjusted OR 5.70; CI 1.24–26.26). This association was not explained by maternal age, duration or control of diabetes, parity, BMI and maternal hypertension (adjusted OR 4.92; CI 0.7–32.3).

The rate of LGA and SGA was 51.3% and 5.4% respectively. Women with micro-vascular disease had higher rates of SGA (10.0% vs 0.0%; p < 0.05) and LGA (65.0% vs 35.0%; p < 0.05).

PP.28 CERVICAL CERCLAGE: ARE ALL TECHNIQUES SUCCESSFUL?

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Objective Preterm birth is a global public health issue. In women considered high risk, insertion of a cervical cerclage has been shown to reduce this risk. We present findings from a retrospective cohort evaluating the success of different cerclage procedures (Shirodkar, McDonald and Transabdominal) in a tertiary level obstetric unit.
Study design Retrospective data was collected for 200 women who underwent a cerclage procedure at Leeds Teaching Hospitals NHS Trust between August 2000 and October 2010. Exclusion criteria for the study included multiple pregnancy, insertion of more than one cerclage in a single pregnancy, or an incomplete data record. Success was measured by delivery of a live baby ≥ 34 weeks. Mean gestational age (MGA) for each group was also calculated. Statistical analysis was performed using Fisher's exact test.

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 MAVRIC[1] 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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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 SUBLINICAL HYPOTHYROIDISM ON THE IQ OF CHILDREN

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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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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 lightweight 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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