

**Perspective cohort study to determine the effects of parental age, height, weight, BMI, and parity on the birth weight and length in uncomplicated single ton pregnancies MD ( Obstetrics and Gynecology) - 2009 D 2263**

To determine the relationship of parental height, weight, BMI, age, and parity on the weight and length of the neonate. Prospective cohort study. Setting: Obstetrics and Gynaecology Units Castle Street Hospital for Women, Colombo . 825 women with uncomplicated singleton pregnancies, their partners and newborn babies in the indexed pregnancy. Main outcome measures: Birth weight, birth length, Ponderal index, and placental weight. We studied 825 expecting women, 53.5 percent nulliparous, 29.8 percent para I, 12.7 percent para 2 and 4.0 percent para three or more. Age distribution was Mean $\pm$ SD= 28.9 $\pm$ 5.1 years, Median=29 years and ranged from 18 to 43 years. Their height weight and BMI were 156,1 $\pm$ 6.5cm, 53.1 $\pm$ 9.6kg, and 21.8 $\pm$ 3.7 respectively. In the BMI groups there were 64.4 percent normal, underweight17.8 percent overweight 14.5 percent and 3.3 percent obese. First trimester Hb concentration was 11.7 $\pm$  1.4g/dl. First trimester USS was done in only 25.5 percent and by 22 weeks 53.1 percent had USS. Gestation at delivery was 273.1 $\pm$ 18.\ days. Paternal age, height, weight and BMI were 32.3 $\pm$ 5.5 years, 162.2  $\pm$ 7.2cm, 63.6 $\pm$  11.8kg, and 22.5 $\pm$ 4.0. 62.8 percent delivered vaginally out of which 4.7 percent were instrumental and 37.2 percent had caesarean delivery. There were 52.7 percent male babies delivered. Mean birth weights for all was 2987 $\pm$ 400g and for male and female babies 3032 $\pm$ 397g and 2936 $\pm$ 399g respectively. Mean length of the babies was 51.62 $\pm$ 3.9cm. Birth weight correlated with maternal height ( r=0.21, p=0.001, 2-tailed), maternal weight, weight gain ( r=0.09,p=0.005, 2-tailed), maternal BMI category ( F=7.5, p 0.001). Maternal and paternal height, weight, and BMI and parity influence the birth weight in uncomplicated term pregnancies. Maternal parameters have more effects than the paternal.