

## ABSTRACT

**Introduction:** Outcomes of pregnancies complicated by first-trimester threatened miscarriages.

**Objective:** To investigate the risk of adverse pregnancy outcomes in women presenting with first-trimester threatened miscarriages.

**Design & setting:** A descriptive study carried out at an obstetric unit of Colombo South Teaching Hospital. The study was conducted from August 2006 to May 2007.

**Method:** This study was designed to compare obstetric outcomes in a cohort of 128 pregnant women with first trimester threatened miscarriage and 256 asymptomatic, age, BMI and parity-matched controls who admitted to antenatal ward or labour room for delivery during the same time scale.

**Outcome measures:** Main outcome measures were gestational age and birth weight. Incidences of other adverse pregnancy outcomes and their correlation with amount of bleeding and progestogen treatment was also analyzed.

**Results:** Of the viable pregnancies delivered within the study period, 8.4% had a history of threatened miscarriage. Compared to controls, women presenting with threatened miscarriage were more likely to deliver prematurely, 5.9% and 15.6%, respectively, (relative risk =2.975, 95% confidence interval (CI) 1.467-6.033 p=.003) and this risk was even higher in preterm delivery before 34 weeks (relative risk =3.37, CI= 1.072-10.447 p=.038). There was a statistically significant difference of 129 grams of mean birth weights between two groups (P<.002). Low birth weight (< 2500 g) infants (OR=2.091, CI=1.267-3.452 p=.004) and growth restricted/small for gestation (OR=10.42, CI=3.61-32.31, p<.000) were commoner in the index group. Term low birth rate was not statistically significant (OR=1.54, CI=.8-2.97 p=.167). They were also more likely to have oligohydramnios (OR=4.88, CI=1.11-24.25, p=.018). Risk was even higher with advanced maternal age (>34years). Although the incidence of antenatal placental complications was similar, that of retained placenta was higher in the study group ( $\chi^2 =10.132$ , df=1, P=0.004). Incidence of induction of labour was higher in the index group. There was no significant difference in the incidences of hypertensive complications or intrapartum fetal distress (pathological cardiotocograms, presence of meconium). Severity of bleeding was associated with risk of fetal anomalies, preterm and cesarean delivery rates. (p=.043, .024 and .031 respectively). Although there was a trend to treat women with heavy bleeding with progestogens by their caring clinicians it was unlikely to contribute to the reduction of any adverse outcome.

**Conclusion:** Women with threatened miscarriage in the first trimester are at increased risk of some adverse outcomes including premature delivery, and this risk factor should be considered when deciding upon antenatal surveillance and management of their pregnancies.