Abstract
Introduction: obesity in pregnancy has been associated with increased morbidity for the mother and fetus. Objective: to quantify the association between obesity in pregnancy with growth deviations of their newborn infants. Methods: a study of non-matched cases and controls was performed based on the Nuevo Civil Hospital of Guadalajara “Dr. Juan I Menchaca” 2012-2013. The dependent variables were the newborn being either large (LGA) or small for gestational age (SGA), and the independent variable was pre-pregnancy obesity. Gynecoobstetric and socioeconomic data were collected. The association between the dependent and independent variables was assessed with logistic regression. Results: one-hundred and forty-three mother-child dyads were studied with growth deviations of their newborn infants, and 137 mother-child dyads without growth deviations were studied. The age of the patients was 24.7 ± 6.3 vs. 24.0 ± 6.0 years, and the gestational age was 38 ± 1.2 vs. 38 ± 1.5. Factors associated with growth deviations were pre-pregnancy obesity (OR 2.65, 95% CI 1.29- 5.44), elevated weight gain during pregnancy (OR 1.98, 95% CI 1.04-3.76) and disease during pregnancy (OR 2.62, 95% CI 1.05-6.76). A multivariate model with the dependent variable LGA and associated covariates showed that pre-pregnancy obesity and high gestational weight gain were predictors of LGA (OR 2.43, 95% CI 1.10-5.40) and (OR 3.31, 95% CI 1.83-5.96). Conclusions: in a population of young women with scarce economic resources, pre-pregnancy obesity and high weight gain during pregnancy were predictors of LGA.

Keywords
Pre-pregnancy obesity, Gestational weight gain, Birth weight.