

## Effects of maternal body mass index and weight gain during pregnancy on the outcome of delivery

**Tabandeh A (MD)**

*Department of Gynecology&Obstetric  
Gorgan University of Medical Sciences*

**Kashani E (MD)**

*Department of Gynecology&Obstetric  
Gorgan University of Medical Sciences*

**Corresponding Author:**

*Tabandeh A (MD)*

**E-mail:**

*tabandeh\_a@yahoo.com*

### Abstract

**Background&Objective:** Abnormal BMI of mother and weight gain play very important role in the outcome of pregnancy. Several researches were done on the correlation between body mass index (BMI) and mother weight gain in pregnancy, and the complications in neonates, like low birth weight and prematurity and mother complications like preeclampsia. This study was performed in order to determine the correlation between body mass index and weight gain during pregnancy, maternal and fetal complications in patient admitted to Deziani hospital in Gorgan, Iran.

**Materials&Methods:** This cross-sectional study was done on 350 pregnant women in Deziani hospital during a year (2002-03). Patients' information's like mother age, pre-pregnancy weight, weight gain during pregnancy and maternal-fetal complications (preeclampsia, PROM, preterm labor and macrosomia) were recorded. After coding, data were analyzed by SPSS and Chi-Square test was used for description.

**Results:** In high BMI women, higher weight gain was seen than normal BMI women. Preterm labor was significantly related with pre-pregnancy BMI ( $P<0.05$ ) but no relationship was seen between weight gain and preterm labor. PROM and birth weight were significantly related to pre-pregnancy BMI and weight gain during pregnancy ( $P<0.05$ ). Preeclampsia has significant relationship with weight gain ( $P<0.05$ ); but not with pre-pregnancy BMI.

**Conclusion:** Abnormal maternal pre-pregnancy BMI and weight gain during pregnancy can complicate the delivery. Low and high BMI and weight gain during pregnancy can contribute with the complications in mothers and neonates.

**Key Words:** BMI, Delivery outcome, Maternal-fetal complications, Weight gain during pregnancy