

Conference Abstract

DAY 1 15th September 2023 (Friday)

ORAL 1

2.00-3.30 pm

Scientific Session 2

Birth weight: placental weight ratio as an indicator of placental efficiency in pregnancies complicated with gestational diabetes**Meera Jacob**

Department of Anatomy, Yenepoya Medical College

Email: meerajacob@yenepoya.edu.in

Background: placenta translates the maternal environment and the genetic factors that influence the birth weight. The growth of placenta is directly proportional to the nutrient transfer as it is the only foetal source for oxygen and nutrients. The present study was done to find any correlation that exists between the placental measurements and its association with birth weight.

Methods: 80 placentae were studied 40 from diabetic mothers and 40 from normal gestation. The gestational age and fetal weight were taken from the case sheets. Placental measurements were weight, central thickness, shape and placental ratio was calculated. The analysis of association of placental weight and birth weight were done with multiple linear regression.

Results: Our study demonstrates that there is a significant increase in weight and central thickness of placenta. Neonatal weight and placental ratio were also increased; there was no change in shape and site of attachment of umbilical cord in case of diabetic placenta when compared to normal. Birth weight and central thickness correlated with the placental weight ($r=0.733$, $p < 0.0001$) and ($r=0.836$, $p < 0.0001$) for diabetic and normal placenta.

Conclusion: measurements of placental parameters are reliable in predicting the placental growth and in estimating the foetal birth weight and it will help in understanding of maternal-placental programming of chronic diseases.

Key words: diabetic placenta, placental ratio, foetal birth weight