

BOOKING BODY MASS INDEX OF WOMEN WITH GESTATIONAL DIABETES MELLITUS: DOES IT AFFECT THE BIRTH WEIGHT OF THE OFFSPRING?

MBC. Motha, J. Gunasena, TS. Palihawadana, TD. Dias

Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Objective: Determine the association between the booking body mass index and the birthweight of the baby born to women with gestational diabetes mellitus. **Method:** This was a retrospective study carried out at North Colombo Teaching Hospital, Ragama, using North Colombo Obstetric Database (NORCOD) between March 2014 and May 2016. Four hundred and twenty women with gestational diabetes mellitus were included in the study. Booking body mass index (BMI) was categorized into the two groups BMI 2 and BMI 3 Kg/m^2 . Babies with a birth weight less than 2500 grams were considered low birth weight (LBW) while babies with a birthweight 3500 grams were considered high birth weight (HBW) babies. Normal range (NBW) for birth weight was 2500-3500 grams. **Results:** Mean age of the study population was 31 years (SD=4.8). Mean BMI was 25.7 kg/m^2 (SD=5.25). Two hundred and ninety eight women (71%) had a booking body mass index 23 kg/m^2 . In the group of women with BMI 23 kg/m^2 , low birth weight (LBW), normal birth weight (NBW) and high birth weight (HBW) rates were 12.1% (N=36), 70.1% (N=209) and 17.8% (N=53) respectively, while in the BMI 2 group, corresponding values were 11.5% (N=14), 80.3% (N=98) and 8.2% (N=10) (P<0.05). **Conclusion:** The observed trend of higher birth weights in offspring of women with GDM whose booking BMI 23 kg/m^2 compared to BMI 23, was significant.