

## **PERINATAL OUTCOME IN PREGNANCY COMPLICATED BY CHRONIC HYPERTENSION**

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Background: Pregnancy complicated by chronic hypertension is thought to affect both the mother and the fetus. The aim of the study was to evaluate perinatal outcome in pregnancy complicated by chronic hypertension.

Methods: The study covered 20 hypertensive pregnancies (the study group) and 105 normal pregnancies (the control group). Both groups did not differ in terms of parity, maternal and gestational age. Hypertension was diagnosed 4.1 $\pm$ 3.1 years before pregnancy and the mean arterial pressure was 160 $\pm$ 18/98.5 $\pm$ 10 mmHg in the study group. The hypertensive group was characterized by higher values of both prepregnancy and predelivery body mass index (BMI) compared with healthy controls (28.6 $\pm$ 6.5 vs. 22.5 $\pm$ 2.6, P<0.001 and 33.1 $\pm$ 7.0 vs. 26.5 $\pm$ 3.4, P<0.001, respectively) but the BMI increase during pregnancy did not differ in both groups (16.0 $\pm$ 5.6 vs. 17.8 $\pm$ 6.3%, NS). We compared the duration of gestation, the incidence of cesarean sections, neonatal birth weight and length, ponderal index, and 1 and 5-minute Apgar score.

Results: The average duration of pregnancy was shorter in the hypertensive group (36.7 $\pm$ 3.5 vs. 39 $\pm$ 2.2 weeks, P<0.005). The incidence of cesarean sections was 45% in the study group and 24% in the healthy controls group (P<0.05). The mean neonatal birth weight was significantly lower in the study group (2883 $\pm$ 956 vs. 3358 $\pm$ 600 g, P<0.03). The neonatal birth length and ponderal index were similar between the groups (51.5 $\pm$ 6.6 vs. 53.4 $\pm$ 3.33 cm, NS and 21.2 $\pm$ 5.9 vs. 22.22 $\pm$ 2.8, NS, respectively). The 1-minute Apgar score was 7.6 $\pm$ 2.1 vs. 9.7 $\pm$ 1.1 (P<0.001) and the 5-minute Apgar score was 8.3 $\pm$ 1.6 vs. 10 $\pm$ 0.5 (NS).

Conclusions: Pregnancy complicated by chronic hypertension is associated with increased incidence of prematurity, lower neonatal birth weight, and lower 1 and 5-minute Apgar score. Fetal distress and worsening maternal condition are the factors responsible for increased incidence of cesarean sections in the hypertensive group.

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