

PERINATAL OUTCOME IN THE THIRD TRIMESTER OF PREGNANCY COMPLICATED BY HYPERTENSION IN THE COURSE OF CHRONIC RENAL DISEASE

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Background: Pregnancy complicated by chronic renal disease and hypertension is thought to be a high risk pregnancy. The aim of the study was to investigate perinatal outcome in pregnancy complicated by hypertension in the course of chronic renal disease.

Methods: The study covered 15 hypertensive pregnancies with chronic renal disease (the study group) and 105 normal pregnancies (the control group) in the third trimester of gestation. Both groups did not differ in terms of maternal and gestational age. All the patients in the hypertensive group were primigravidas, whereas 51.4% of healthy controls were multiparas ($P < 0.002$). Hypertension was diagnosed 7.8 ± 6.7 years before pregnancy and the mean arterial pressure during the 3rd trimester was $159 \pm 8.5/97 \pm 11$ mmHg in the study group versus $115 \pm 6/68 \pm 7$ mmHg in the control group ($P < 0.001$ for both systolic and diastolic pressure). Hypertension complicated the following underlying kidney disorders: chronic glomerulonephritis (8 patients), chronic pyelonephritis (2), nephrolithiasis (1), hydronephrosis (1), and renal hypoplasia (1). In 2 patients hypertension followed renal transplantation. The study group manifested proteinuria of 1.84 ± 0.8 g/24 hours. Neither prepregnancy nor predelivery body mass index (BMI) differed in both groups (21.6 ± 1.6 vs. 22.5 ± 2.6 , NS and 26.1 ± 2.4 vs. 26.5 ± 3.4 , NS, respectively). 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 (35.1 ± 3.5 vs. 39 ± 2.2 weeks, $P < 0.001$). The incidence of cesarean sections was 80% in the study group and 24% in the healthy controls group ($P < 0.001$). The mean neonatal birth weight and length differed significantly between the groups (2435 ± 878 vs. 3358 ± 600 g, $P < 0.0015$ and 48.5 ± 3.78 vs. 53.4 ± 3.33 cm, $P < 0.001$, respectively). The ponderal index was 20.41 ± 4.63 vs. 22.22 ± 2.8 (NS). The 1-minute Apgar score was 6.8 ± 3.12 vs. 9.7 ± 1.1 ($P < 0.004$) and the 5-minute Apgar score was 8.2 ± 3.8 vs. 10 ± 0.5 (NS).

Conclusions: Pregnancy complicated by chronic renal disease and hypertension is associated with poorer perinatal outcome reflected by increased incidence of prematurity and cesarean sections and lowered Apgar score.

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