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**The Official publication of Perinatal Medicine Foundation,
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Turkish Society of Ultrasound in Obstetrics and Gynecology**

Description

Perinatal Journal, the official publication of Perinatal Medicine Foundation, Turkish Perinatology Society and Turkish Society of Ultrasound in Obstetrics and Gynecology, is an international online open access peer-reviewed scientific journal (e-ISSN 1305-3124) published triannually in English. The manuscripts which are accepted for publication in the Perinatal Journal are published as a parallel publication of Turkish version in "Perinatoloji Dergisi" (p-ISSN:1300-5251, e-ISSN:1305-3132). Translation in to Turkish language is provided by the publisher as free of charge for authors. This is automatically accepted by the authors of manuscripts at the time of submission.

The journal mainly includes original clinical and experimental research articles, case reports, reviews, editorial and opinion articles, and a letters column. Perinatal Journal can be read by perinatologists, obstetricians, gynecologists, radiologists, pediatricians, sonographers, midwives, radiographers, and scientific members of other related areas.

Aim and Scope

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Telefon: +90 216 414 83 43 (Pbx) **Fax:** +90 216 414 83 42

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Correspondence: Perinatal Journal, Perinatal Medicine Foundation,
Cumhuriyet Cad. 30/5 Elmadag, Taksim 34367 Istanbul, Turkey
Phone: (0212) 225 52 15 • **Fax:** (0212) 225 23 22 • **e-mail:** editor@perinataljournal.com
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labor and despite 2 hours of bed rest, 2 or more uterine contractions in 10 minutes were detected with either manual examination or tococardiographic evaluation. Patients with preterm delivery accompanying fetal distress, ablation placentae, chorioamnionitis, preeclampsia and fetal anomalies were excluded from our study. A total of 64 patients were randomly divided into two groups according to administration of either ritodrine or nifedipine. Clinical and laboratory parameters, cervical length and early and late doppler measurements of umbilical artery, bilateral uterine arteries, ductus venosus and middle cerebral artery were recorded.

Results: When we evaluated the results of the study there were statistically no difference between two groups doppler values for umbilical artery, middle cerebral artery and ductus venosus. Also there were no statistically difference between two groups in terms of prolongation of pregnancy. Only significant difference evaluated in uteroplacental blood flow. In Nifedipine group bilateral uterine arteries PI was significantly decreased after medication. Also there was no difference on Doppler values between patients with and without therapeutic success.

Conclusion: Since efficiency and vascular side effects of both drugs were recorded to be similar, the choice of tocolytic agent in preterm labor should be made according to the side effect profile, cost, applicability in clinical settings and patient coherence to treatment.

Keywords: Doppler ultrasonography, nifedipine, ritodrine.

PP-031

Ratio of middle cerebral artery / umbilical artery Doppler velocimetry and status of newborn in preeclampsia

Ana Daneva Markova¹, Marija Hadzi Lega¹,
Milan Stefanovic², Andrijana Sterjovska³

¹University Clinic of Gynecology and Obstetrics, Skopje, Macedonia;
²University Clinic of Gynecology and Obstetrics, Nis, Serbia; ³Medical Faculty, Stip, Macedonia

Objective: Doppler velocimetry studies of placental and fetal circulation can provide important information regarding fetal well-being providing an opportunity to improve fetal outcome. The present study was undertaken to evaluate the role of middle cerebral to umbilical artery blood velocity waveform's systolic/diastolic ratio (MCA/UA) as a predictor of perinatal outcome in post term pregnant women.

Methods: This prospective case control study included one hundred pregnant women who were stratified into two groups. Fifty pregnant women during the third trimester (control group=group A) and fifty pregnant women with Preeclampsia (case group=group B). The results of the MCA/UA ratio were evaluated with respect to the outcome

of the infants and adverse perinatal outcome, defined as perinatal death, cesarean delivery for fetal distress, admission to the neonatal intensive care unit, days in the neonatal intensive care unit (NICU) or low Apgar score.

Results: Twenty nine percent (29%) had an abnormal CPR (<1.0) while seventy eight percent (78%) had a normal CPR (≥ 1.0). Seventy eight percent (78%) were delivered via caesarean section while twenty two percent (22%) were delivered vaginally. An APGAR score < 7 was 66 times more often in mothers with CPR <1.0 than mothers with CPR ≥ 1.0 . Low birth weight was 4.7 times more likely among mothers with CPR < 1.0 as compared to those with mothers with CPR ≥ 1.0 (95% CI 2, 11.1; $p<0.001$). An APGAR score <7 was 66 times more likely among neonates delivered vaginally as compared to those born via caesarean section (95% CI 1.3, 23; $p=0.02$).

Conclusion: CPR is significantly predictive of adverse perinatal outcome when used to monitor mothers with hypertensive states of pregnancy than UA RI or BPPS used alone. CPR was predictive of adverse perinatal outcome (live birth, APGAR score and low birth weight). Caesarian section should be the recommended mode of delivery for hypertensive mothers. Although the sample size of our study was small, our results suggested that the MCA/UA Doppler ratio of less than 1 was a good predictive tool for neonatal outcome in post term pregnant women and could be used to identify fetuses at risk of morbidity.

Keywords: Middle cerebral artery, umbilical artery, preeclampsia.

PP-032

Doppler flow parameters for uterine, umbilical and mid cerebral arteries at low and moderately high altitudes

Ayşe Nur Aksoy¹, Gonca Batmaz², Banu Dane²,
Suna Kabil Kucur¹, İlay Gözükar¹

¹Department of Obstetrics and Gynaecology, Nenehatun Hospital, Erzurum, Turkey; ²Department of Obstetrics and Gynaecology, Faculty of Medicine, Bezmialem Vakıf University, Istanbul, Turkey

Objective: This study aimed to investigate the differences in maternal and foetal Doppler flow parameters in women with term pregnancy living at moderately high with those of women living at sea level. For this purpose, we compared the pulsatility (PI) and resistance (RI) index values for uterine, umbilical and mid cerebral arteries in term pregnant women at moderately high altitude and sea level. Also, we aimed to investigate the differences in birth and placental weights between moderately high and low altitudes.

Methods: Eighty women between 20-40 years with full-term pregnancies (≥ 37 gestational weeks) admitted to the Obstetric

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