



ANTENATAL SURVEILANCE OF POSTTERM PREGNANCIES WITH DOPPLER VELOCIMETRY

Shahinaj R (AL) [1], Manaj A (AL) [2], Bylykbashi E (AL) [3], Muhametaj M (AL) [4], Abedini A (AL) [5]

Background: Postterm pregnancies are those exceeding 294 days or 42 weeks of gestation where dating is based on the first day of the last menstrual period. The prevalence is about 3-12%. Post-term pregnancy is associated with increased risk of neonatal morbidity and mortality.

Objective: The objective of the study was to assess the value of Doppler velocimetry in predicting fetal outcome in post-term pregnancies.

Study design: This study is a retrospective one. We included in the study 76 medical charts of women who delivered in the University Hospital of Obstetrics and Gynecology "Mbreterasha Geraldine" beyond 42 weeks of gestation. The diagnosis of post-term pregnancy was based on menstrual age and ultrasound examinations. All the patients underwent accurate color Doppler velocimetry examination. The study population was divided into two groups depending on the normal or abnormal values of MCA/UA pulsatility index ratio.

Major adverse perinatal outcome were stillbirth and neonatal death. Minor adverse perinatal outcome were cesarean delivery for fetal distress, Apgar score below 7 at 5 minutes, admission to the neonatal intensive care unit, postmaturity syndrome.

Statistical analysis of data was performed by SPSS-10 computer programme. Categorical variables were compared by contingency chi-square test. $P < 0.05$ was considered significant.

Results: We divided the study population into two groups depending on normal or abnormal value of MCA/UA pulsatility index ratio. In 29 patients we found abnormal values of MCA/UA pulsatility index ratio. Neonates with abnormal values of MCA/UA pulsatility index ratio had significantly lower Apgar score at 5 minute, significantly greater risk of admission to intensive care unit, more elective delivery with section cesarean and more importantly, significantly greater risk for perinatal death

Neonates of group with abnormal values of MCA/UA pulsatility index ratio had significantly lower Apgar score at 5 minute 100% versus 48.9% ($P < 0.001$), significantly greater risk of admission to intensive care unit 93.1% versus 42.58% ($P < 0.001$), more elective delivery with section cesarean 82.7% versus 31.9% ($P < 0.001$), significantly greater risk of oligoamnios 93.1% versus 8.1% ($P < 0.001$) and significantly

[1] University Hospital of Obstetric and Gynecology Tirana, [2] University Hospital of Obstetric and Gynecology of Tirana, [3] University Hospital of Obstetric and Gynecology of Tirana, [4] University Hospital of Obstetric and Gynecology of Tirana, [5] University Hospital of Obstetric and Gynecology of Tirana

greater risk of postmaturity syndrome 79.3% versus 19.1% ($P < 0.001$) .

Conclusion: Doppler velocimetry is very useful in predicting perinatal outcome in postterm pregnancies. Postterm pregnancies with abnormal Doppler velocimetry indices have a high risk for perinatal morbidity and mortality.

Pulsed wave Doppler sonographic studies provide a non invasive method for the assessment of blood flow in the fetal circulation. Fetal arterial and venous waveform analysis provide insight to the fetal wellbeing.