

# **GESTOSIS/PREECLAMPSIA - LONG TERM NEONATAL OUTCOME**

## **Prpic I**

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### **INTRODUCTION**

Data on the neonatal outcome in preterm infants who were delivered for maternal pre-eclampsia are very confusing. Some studies showed that the risk of neonatal mortality and morbidity appear to be greater in infants born preterm to pre-eclamptic mothers than in infants born at corresponding weeks. On the other hands, some studies proved that hypertension during pregnancy have beneficial effect on neonatal outcome. On the other hand, the long term impact of pre-eclampsia on development outcome of preterm infants has been modestly studied. The obtained results regarding long term neurological disorders are extremely various.

### **AIM**

Therefore we want to determine the outcome of preterm infants born to mothers with hypertension during pregnancy at the age of 12 months. The outcome measure was cerebral palsy (CP) at the 12 months, corrected for prematurity, as one of the most severe consequence of prematurity.

### **METHODES**

Children born at the Department of Obstetrics and gynaecology of the University hospital Rijeka during the 5 years period (1998-2002) were studied. There were 19 infants born to hypertensive mothers (EI) who were compared with 31 premature infants who developed CP. Spontaneous preterm labour were main reasons of preterm delivery in CP group of children. Pregnancies with multiple gestation, known foetal anomalies, diabetes, and premature rupture of membrane or maternal medical disease were excluded in group of CP. Two groups of children were compared regarding gestational age, birth weight, small for gestational age (SGA) birth weight, birth length, head circumference and Apgar score at first and fifth minute(AS1/AS5). Information's was obtained on computerised neonatal mortality and morbidities recorded.

### **RESULTS**

The mean GA for infants born on pre-eclamptic mothers was 32,4 weeks and for those who developed CP 31,4 weeks, which was not statistically significant. There was no statistical difference between two groups regarding birth weight (1684,5g CP vs. 1755,3g EI), birth length (41,6cm CP vs. 42,5cm EI), head circumference (29,4cm CP vs. 29,2cm EI), AS1 (5,6 CP vs. 6,7 EI) and AS5 (6,7 CP vs. 6,8 EI). The only statistical difference was that there were more SGA infants (47,4%) born on pre-eclamptic mothers regarding 19,4% infants who developed CP.

### **CONCLUSION**

There were no premature infants born to mother with pre-eclampsia who developed CP at the age of 12 months. Neurological development of the children born on pre-eclamptic mother at one year of age may indicate that timing of the delivery may have been optimal in this material. The incidence of cerebral palsy (CP) and minor neurological disorders of preterm infants is inversely related to birth weight and

gestational age. Maternal hypertension seems to protect against cerebral palsy, but may cause significant intrauterine growth restriction. Decreased intrauterine growth may possibly have a negative effect on brain growth and mental developmental potential. Further examinations of prematurely born children on pre-eclamptic mother at school-age is need to revealed if they have disturbances in cognitive ability and/or visuomotor integration, which is usually found more often at premature children.