SLEEP DISORDERED BREATHING IN PREGNANCY COMPLICATED BY HYPERTENSION

K. Gruca-Stryjak Karolina¹, <u>S. Cofta²</u>, E. Wysocka³, H. Batura-Gabryel², G. Bręborowicz¹

¹Department of Perinatology and Gynecology, University of Medical Sciences, Poznan, Poland 60-535 Poznan, ul. Polna 33, Poland, karolagruca@poczta.onet.pl

²Department of Respiratory Medicine, Alergology and Pulmonary Oncology, University of Medical Sciences, Poznan, Poland.

³Chair of Chemistry and Clinical Biochemistry: Department of Clinical Biochemistry and Laboratory Medicine, University of Medical Sciences, Poznan, Poland.

Objective: Recent evidence suggest that women with gestational hypertension (GH) and preeclampsia (PE) have a high rate of sleep disordered breathing (SDB). The object of this study was to investigate of daytime sleepiness, snoring, blood pressure changes and presence of SDB in pregnancy complicated by hypertension and evaluate their impact on the perinatological outcome.

Methods: A total of 15 women with GH, 13 with PE and 23 women with uncomplicated pregnancies consented to participate in the study. The study we divided into three parts: Part 1- questionnaire on past and present sleep disorders including Epworth Sleepiness Scale. Neck circumference and assessment in Mallampati score was obtained. In Part 2- nocturnal polysomnography. In part 3 -2 weeks after delivery, the patients were surveyed regarding fetal outcome and mode of delivery.

Results: The parameters of BMI (p=0,006), neck circumference (p=0,003), Mallampati score (p<0,001) were higher in pregnancies complicated by hypertension.

Significant snoring was observed in PE (p=0,01). In women with GH was observed a significant positive relationship between AHI and systolic blood pressure, BMI and snoring. In the group of PE was observed significant positive relationship between the value of AHI and diastolic blood pressure and snoring. In PE significant negative correlation was found between the value of AHI and the assessment of the newborn in the first minute of life with Apgar score. Obstructive sleep apnea (AHI> 5) was diagnosed in three patients, which accounted for 3% of all studied women. Two patients due to severe obstructive sleep apnea (AHI> 30) were treated by continuous positive airway pressure (CPAP).

Conclusion: Blood pressure changes were depended on AHI value. SDB in pregnancy may have an impact on the newborn well-being.