OP-006 Cardiovascular disease after early-onset preeclampsia

Paula Domínguez-del Olmo[1], Ignacio Herraiz[2], Cecilia Villalaín[2], Gema Ruíz[1], Enrique Morales[1], Jose Luis Ayala[3], Jorge Solís[1], Alberto Galindo[2]

[1]12 de Octubre University Hospital, Madrid, Spain
[2]12 de Octubre University Hospital, Fetal Medicine Unit, Obstetrics and Gynecology Service, Madrid, Spain
[3]Complutense University of Madrid, Madrid, Spain

DOI: 10.59215/prn.24.032supp006

Objective: Early-onset preeclampsia (eoPE) is a hypertensive pregnancy-related complication characterized by endothelial dysfunction manifested before 34 weeks. Literature stated that women with a hypertensive-complicated obstetric history are at increased risk of cardiovascular disease (CVD), situating the postpartum period as an excellent opportunity for effective screening and cardiovascular risk prevention. In this research, we have assesed if the vascular damage caused during an episode of eoPE is associated later on to a higher risk and occurrence of CVD compared to women with normal pregnancies.

Methods: An observational, longitudinal, prospective case-control study have been conducted in 50 women with eoPE and a control group of equal size (matched for age, parity, pregestational body mass index and date of delivery). All patients underwent a cardiovascular assessment including a blood-urine test, an atherosclerosis study and a 24-hour blood pressure monitoring. A statical analysis was performed for case-control parameters comparisons; Traditional Framingham calculators were used to estimate the cardiovascular risk in all patients and a Kaplan-Meier analysis was done to estimate the survival function (time without hypertension (HT)).

Results: At a median of 7.5 years after delivery, the blood tests results suggest a worse vascular status in the eoPE group; they showed worse BP measurements, especially in the nocturnal period and no differences were found in the atherosclerosis study. The obtained scores from the Framingham calculators were similar in both groups; however, a CVD was present in 44% of eoPE cases vs 10% of controls and chronic HT was diagnosed after delivery in 38% vs 8% of controls (relative risk of 4.7) with a survival time of 7.4+/-0.7 and 11.6+/-0.2, respectively.

Table 1. 24-hour blood pressure measurement

Parameter	Controls	eoPE cases	p
24 h-BP			
Systolic BP (mmHg)	111.0 ± 11.8	116.3 ± 11.0	<0.05
Systolic readings over limit (%)	11.2 ± 18.9	17.9 ± 20.8	<0.01
Diastolic readings over limit (%)	18.7 ± 22.6	28.1 ± 22.2	<0.01
Diurnal BP			
No statistically significant differences were found			
Nocturnal BP			
Systolic BP (mmHg)	101.2 ± 12.9	108.3 ± 11.5	<0.01
Diastolic BP (mmHg)	62.6 ± 7.6	66.8 ± 8.2	<0.05
Mean BP (mmHg)	75.5 ± 9.0	80.6 ± 8.9	<0.01
Systolic readings over limit (%)	12.1 ± 23.4	18.7 ± 22.8	<0.05

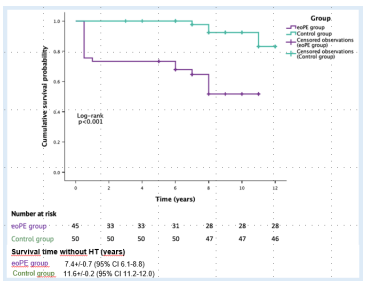

Fig 1. Kaplan-Meier analysis

Conclusion: Women with a history of eoPE exhibited greater endothelial dysfunction and a higher prevalence of CVD, particularly chronic HT. Current CVD scores underestimate these risks in women with a history of eoPE, so it should be included as a risk factor.

Keywords: Hypertensive, pregnancy, preeclampsia, cardiovascular, case-control

OP-007 First-trimester preeclampsia screening for the detection of fetal growth restriction

Cecilia Villalaín González[1], Carmen San Martín[1], Alice María Colmenero-Walsh[1], Eva Robisco[2], Ignacio Herraiz[2], Alberto Galindo[2]

[1]Complutense University of Madrid, University Hospital 12 de Octubre, Maternal and Child Health and Development Network, Department of Obstetrics and Gynaecology, Fetal Medicine Unit, Madrid, Spain
[2]Complutense University of Madrid, Madrid, Spain

DOI: 10.59215/prn.24.032supp007

Objective: Placental dysfunction is at the root of maternal complications such as preeclampsia (PE) as well as most cases of poor fetal growth. Given the shared underlying