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Analysis of the population screening for preeclampsia at the Hospital Universitario San Juan de Alicante during 2021

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Objective

Preeclampsia (PE) is a multisystem disorder that affects 3% of pregnant women in the world. It is related with substantial maternal and neonatal morbidity and mortality, mainly due to induced preterm birth and fetal-growth restriction. Early detection through high-risk screening approaches may help reduce these complications. Recent studies have shown the benefit of low-dose of aspirin for the prevention of the disease in high-risk pregnant women. In our hospital, we have introduced a population screening for preeclampsia from December 2020. The objective of this study is to analyze its results during the year 2021.

Methods

We performed a descriptive and prospective study based on a combined population screening of preeclampsia from the Hospital Universitario San Juan de Alicante (Spain), and subsequent treatment with low-dose aspirine to those women with a high-risk for preterm preeclampsia, between January and October 2021. Preeclampsia screening test combines maternal factors, mean arterial pressure, uterine artery pulsatility index and serum placental growth factor (PlGF). These data are collected routinely to all pregnant women in the first trimester. Once we selected those women with high-risk for preterm preeclampsia, treatment with low-dose of aspirin (150 mg per day) was initiated before 16 weeks to 36 weeks of gestation.

Results

A total of 1070 pregnant women were included. 191 were high-risk for both preterm and late-onset PE (17.85%) and 116 were high-risk for preterm PE only (10.84%). 26 women are still pregnant in the moment of our study, 80 (88.89%) had no adverse outcomes during pregnancy and 10 (11.11%) suffered from placental disorders. These disorders were mild late-onset PE (n=5), severe preterm PE (n=1), severe preterm PE with fetal-growth restriction (n=2), fetal-growth restriction without PE (n=1) and stillbirth (n=1). We only have 1 patient with severe preterm preeclampsia and low-risk screening.

Conclusion

Current evidence shows that the administration of low-dose aspirin (150 mg per day) from 11 to 14 weeks until 36 weeks of gestation is associated with a significantly lower incidence (60% approximately) of preterm preeclampsia in high-risk pregnant women. This analysis presents only preliminary results in our hospital from the year 2021. Despite only 3.33% of pregnant women have developed preterm preeclampsia, we need to complete the study to clarify the benefit from the implementation of the screening in our hospital.