consists in positioning the transducer transversely in the abdomen, parallel to the uterine cervix on each side, at the level of its internal orifice, and connecting the colour Doppler, thus promptly locating the homolateral artery, in the centre of which we then position the pulsed Doppler cursor with a sample volume of 2mm, with the wall filter set to 50–70Hz, minimum PSV of 60cm/s and angle of insonation <30 degrees, thus obtaining from four to six stable waves. This way, these vessels can be easily identified in most patients and they can have their PI and RI gaged. Our objective is to analyse whether the measurement of the pulsatility index of the uterine arteries along the cross-section results in values similar to those obtained for the longitudinal section, considered the current standard method.

Methods: A retrospective study was carried out involving pregnant women submitted to first trimester morphological examination, who came to the Mater Dei Healthcare Network in the city of Belo Horizonte from August 2017 to January 2018. Uterine artery mean pulsatility index analysis was carried out; it was measured in 349 volunteers using the sagittal and transverse technique. In addition, individual factors such as parity, ethnicity and chronic artery hypertension were checked.

Results: The value for the uterine artery pulsatility index in the sagittal plane (1.634 + 0.52) was similar to the value found for the cross-section (1.633 + 0.54) and there were no statistically significant differences between them (P = 0.55).

Conclusions: The pulsatility index of uterine arteries can be measured in a reliable and easily reproducible way using both the sagittal and transverse techniques, with no change in the final outcome of pre-eclampsia screening via the Fetal Medicine Foundation (FMF) algorithm.

VP50.09

Cardiovascular events following pre-eclampsia with emphasis on the comparison between early and late onset forms: a systematic review and meta-analysis

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Objectives: To elucidate whether pre-eclampsia (PE) and the gestational age at onset of the disease (early-onset vs. late-onset PE) has an impact on the risk of long-term cardiovascular (CV) complications.

Methods: MedLine and Scopus databases were searched until April 2020. The primary outcome was a composite score of cardiovascular morbidity including either maternal death, major CV events, hypertension need for anti-hypertensive therapy, type 2 diabetes mellitus dyslipidaemia, metabolic syndrome; secondary outcomes were the individual components of the primary outcome analysed separately. Data were combined using a random-effect generic inverse variance approach.

Results: 73 studies were included. Women with a prior history of PE had a higher risk of cardiovascular morbidity during life (OR 2.05), death (OR 2.18), major cardiovascular events (OR 1.80), hypertension (OR 3.93), need for anti-hypertensive medication (OR 4.44), dyslipidaemia (OR 1.32), diabetes (OR 2.14), abnormal renal function (OR 3.37) and metabolic syndrome (OR 4.30) compared to those with no history of PE. When stratifying the analysis according to time at onset of PE, women with previous early-onset PE were at higher risk of composite adverse cardiovascular outcome (OR 1.75), cardiovascular events (OR 5.63) hypertension (OR 1.48), dyslipidaemia (OR 1.51), abnormal renal function (OR 1.51) and metabolic syndrome (OR 1.66) compared to women with late PE.

Conclusions: PE as well as early- and late-onset PE represent risk factors for adverse CV events later in life. Early-onset PE is associated with a higher burden of CV mortality and morbidity compared to late-onset PE.

VP50.10

Predicting fetal and maternal complications with sFlt1/PlGF ratio in hypertensive disorders of pregnancy

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Objectives: Hypertensive disorders of pregnancy (HDP) are a leading cause of maternal and perinatal morbidity and mortality. A valid resource for predicting adverse outcomes was found in angiogenic placental markers sFlt1 and PlGF. Our study aims at assessing its validity in cases of HDP.

Methods: This is a longitudinal, observational study. The cohort consists of women from our high-risk unit from January 2019 to February 2020. We selected 106 singleton pregnancies who underwent sFlt1/PlGF evaluation for HDP, either isolated (HDP-AGA) or associated with IUGR (HDP-IUGR). We subsequently distinguished two groups: uncomplicated pregnancies and cases with maternal complications (hypertensive crisis, symptomatic pre-eclampsia, HELLP, abruptio placentae) or fetal complications (stillbirth, delivery before 32 weeks on maternal indication, Apgar <7 at 5 minutes). Serum PlGF and sFlt-1 levels were measured on Cobas e601 platform (Roche Diagnostics). Cut-offs for sFlt1/PlGF ratio were 85 and 110 before and after 34 weeks.

Results: Overall, in the absence of complications, the mean value of sFlt1/PlGF ratio was 147 ± 202. When fetal complications occurred, a mean value of 442 ± 159 was found (p 0,001). Instead, in cases of maternal complications the mean value was 412 ± 306 (p < 0,001). A notable difference was observed between the two HDP subgroups. In HDP-AGA cases only maternal complications were registered, with a significant difference from uncomplicated cases (mean values 444 ± 28 vs. 410 ± 21, p < 0,001). HDP-IUGR cases, compared to uncomplicated pregnancies of the same subgroup (mean value 241 ± 232), showed a not significantly increased sFlt1/PlGF ratio in occurrence of either fetal or maternal complications (p = 0,06 and 0,075 respectively).

Conclusions: sFlt1/PlGF ratio can predict maternal and fetal complications in HDP. However, in the HDP-IUGR group the difference between complicated and uncomplicated pregnancies was not significant, possibly for the low gestational age at delivery that may precede complications.

VP50.11

Role of sFlt-1/PlGF and uterine Doppler in pregnant patients with chronic kidney disease

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