

etiology, we aim to evaluate the performance of the FMF combined first-trimester PE screening at different cut-offs to detect fetal growth restriction (FGR) at any point of pregnancy.

Methods: Retrospective cohort study performed at a tertiary-level teaching hospital including singleton pregnancies with first-trimester PE screening and complete pregnancy outcomes with delivery at the same hospital between January 2023 and September 2023. The study was approved by the local Institutional Review Board. Gestational age was calculated according to crown-rump length at the first-trimester ultrasound. Screening was performed at 12 (11-14) weeks with PIGF determination at 11 (9-13) weeks. We categorized the risk into four groups, a basal one G0 (>1:200), G1 between 1:200 and 1:101, G2 between 1:100 and 1:51, and G3 91:50. PE was defined as the presence of hypertension (9140 / 90 mmHg) and proteinuria (9300 mg/24 hours or a urine protein-to-creatinine ratio of 9 0.3). FGR was considered as a newborn weight <3rd customized centile according to GROW software. The main maternal basal characteristics as well as perinatal outcomes were collected from the clinical electronic history.

Descriptive analysis was performed using mean (standard deviation-SD) and median (interquartile range) or n (%) where appropriate. The performance of the screening to detect FGR was tested using logistic regression analysis, sensitivity, specificity, positive and negative predictive value, and the area under the ROC curve. Statistical analysis was computed using STATA 14.2 and significance was considered with p values <0.05 in a two-tailed distribution.

Results: A total of 1831 screenings were performed, of which 1330 had complete pregnancy outcomes and composed the final study population. The mean (SD) maternal age was 31.8 (6.1) years old of which 48% were nulliparous, 3.9% had at least one major risk factor of PE, 11.8% had a history of fetal smallness, and 5.0% of previous PE.

Classification of the risk of preterm PE showed that 1127/1330 (84.7%) were part of G0, 77/1630 (5.8%) of G1; 70/1330 (5.3%) of G2, and 56/1330 (4.2%) of G3.

The mean (SD) gestational age at delivery was 39.5 (2.1) weeks, with a mean weight of 3194 (493) g. The overall PE incidence was 5.0% and 1.7% of preterm PE. There were 45/1330 (3.4%) of newborns born <3rd centile of which 8/45 (17.8%) had concomitant PE. When compared with the G0 group, the RR for FGR was 2.4 (95% CI 0.9 – 6.3)

for G1; 1.6 (95% CI 0.5 – 5.2) for G2, and 4.7 (95% CI 2.1 – 10.7) for G3.

Considering those at highest risk (G3), the performance of the screening to detect FGR had a sensitivity of 25% (95% CI 15.3% – 37%), specificity of 95.8% (95% CI 94.6% – 96.8%), positive predictive value of 23.3% (95% CI 14.2% – 34.6%), negative predictive value of 96.2% (95% CI 95% – 97.1%), and AUC of 0.60 (95% CI 0.55 – 0.66).

Conclusion: A very high risk (>1:50) of preterm PE in the first-trimester screening is strongly associated with both PE and FGR but is a poor predictor of fetal growth. Strategies later on during pregnancy should be established to early identify FGR and follow up in this particular group of women.

Keywords: Preeclampsia, screening, fetal growth restriction

OP-008 Performance of the FMF first-trimester preeclampsia-screening algorithm in women with high-risk factors

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Objective: The performance of the first-trimester preeclampsia (PE) screening among women with traditional high-risk factors remains controversial. Administration of prophylactic aspirin regardless of the result of the screening is still a common practice considered the basal risk of placental disease. Our aim was to evaluate the performance of the FMF first trimester screening to detect preterm PE in women with at least one high-risk factor.

Methods: Retrospective cohort study performed at a tertiary-level teaching hospital including singleton pregnancies with first-trimester PE screening and complete pregnancy outcomes with delivery at the same hospital between January 2023 and September 2023. The study was approved by the local Institutional Review Board. Gestational age was calculated according to crown-rump length at the first-trimester ultrasound. Screening was performed at 12 (11-14) weeks with PIGF determination at 11 (9-13) weeks. High-risk factors were considered as the presence of chronic hypertension, pregestational diabetes

mellitus, systemic lupus erythematosus, antiphospholipid syndrome, or prior preeclampsia. Women with a risk >1:100 at screening were prescribed 150mg aspirin until 36 weeks. Those with a low-risk screening but with a high-risk factor were offered the possibility to either be considered as low-risk and not receive aspirin or still take aspirin.

The main maternal basal characteristics as well as perinatal outcomes were collected from the clinical electronic history. PE was defined as the presence of hypertension (>140 / 90 mmHg) and proteinuria (>300 mg/24 hours or a urine protein-to-creatinine ratio >0.3 mg/mg). Preterm PE was considered as the one that required delivery before 37 weeks of gestation. For the purpose of this study, patients with a high-risk factor or positive screening were contacted by telephone and asked about their adherence to aspirin.

Descriptive analysis was performed using mean (standard deviation) and median (interquartile range) or n (%) where appropriate. The performance of the screening to detect PE was tested using logistic regression analysis, sensitivity, specificity, positive and negative predictive value, and the area under the ROC curve. Statistical analysis was computed using STATA 14.2 and significance was considered with p values <0.05 in a two-tailed distribution.

Results: A total of 1831 screenings were performed, of which 1330 had complete pregnancy outcomes and composed the final study population. The mean (SD) maternal age was 31.8 (6.1) years old and 48% were nulliparous. There were 52/1330 (3.9%) who had at least one major risk factor of PE: prior PE (3.1%), chronic hypertension (2.6%), antiphospholipid syndrome (0.8%), diabetes mellitus (0.5%), and systemic lupus erythematosus (0.2%).

In 126/1330 (9.5%) women a positive screening was obtained, of which 115/126 (91.3%) were treated with aspirin and 111/115 (96.5%) reported >90% adherence. Among those with at least one high-risk factor, the rate of positive screening was 27/52 (51.9%). All with a positive screening and 7/16 with a negative result were treated with prophylactic aspirin.

The PE incidence was of 4.96% and 1.73% of preterm PE. Among women with at least one high risk factor, the incidence of preterm PE was 3.85% (7.41% vs 0% in those with that screened positive vs negative, respectively).

The performance of the screening for preterm PE on the whole population vs those with a high-risk factor was as follows: sensitivity of 52.2% (95%CI 30.6% -

73.2%) vs 100% (95%CI 15% - 100%), specificity of 91.3% (95%CI 89.6% - 92.8%) vs 50% (95%CI 35.5% - 64.5%), positive predictive value of 9.5% (95%CI 5% - 16%) vs 7.4% (95%CI 0.9%-24.3%), negative predictive value of 99.1% (95%CI 98.4% - 99.5%) vs 100% (95%CI 86.3% -100%), AUC of 0.71 (95%CI 0.61 - 0.82) vs 0.75 (95%CI 0.68 - 0.82).

Table 1. The performance of the screening for preterm PE on the whole population vs those with a high-risk factor

	General population	High-risk factor
Sensitivity	52.2% (30.6% - 73.2%)	100% (15% - 100%)
Specificity	91.3% (89.6% - 92.8%)	50% (35.5% - 64.5%)
PPV	9.5% (5% - 16%)	7.4% (0.9%-24.3%)
NPV	99.1% (98.4% - 99.5%)	100% (86.3% -100%)
AUC	0.71 (0.61 - 0.82)	0.75 (0.68 - 0.82).

Conclusion: In our setting, half of women with at least one high-risk factor have a positive first-trimester screening for preterm PE. The overall performance is similar to the general population with excellent negative predictive values in both. The rates of preeclampsia were similar in women who screened negative regardless of the presence of major risk factors. We cannot exclude a possible effect of aspirin since 44% of women with high-risk factors and a negative screening were treated with aspirin.

Keywords: First trimester, screening, preeclampsia

OP-009 Antenatal corticosteroids in the late preterm: a five year retrospective comparative study

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Objective: Late preterm neonates, although of comparable size and weight to term newborns, are still at higher risk for morbidities and mortality compared to term infants. However, ANC use to prevent these complications in the late preterm remains controversial. The goal of this study was to evaluate the outcomes of late preterm neonates who received primary and/or rescue courses of ANC within or beyond seven days compared to those who did not receive antenatal corticosteroids.

Methods: Eighty one mothers and babies were included in this study. Review of their medical records was done. Patients were grouped into four: Group 1 – those who delivered without being given ANC; Group 2 - delivered