

The ability of sFlt-1/PlGF ratio for preeclampsia characterization

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Objective. Aim of our study is to confirm the role of sFlt-1/PlGF ratio in diagnosis and monitoring of preeclampsia (PE) and foetal growth restriction (FGR), to better manage and predict maternal and foeto-neonatal adverse outcomes.

Materials and Methods. This is an observational study on 75 singleton pregnancies admitted in our Division for High-Risk Pregnancies between September 2021 and April 2023 with a diagnosis of Preeclampsia and/or FGR.

Results. Three groups were identified: early-onset PE (Group A n = 24), late-onset PE (Group B n = 7), FGR (Group C n = 44). Different statistically significant differences were observed among groups with lower pre-pregnancy BMI in group C and higher gestational weight gain in group B. The lowest gestational age

at diagnosis was in Group A but the lowest foetal weight centile was of Group C. Regarding neonatal outcome, the worst outcome in terms of gestational age at delivery, neonatal weight and APGAR 5th was found in Group A that at admission presents the higher sFlt-1/PlGF ratio; this difference was statistically significant in comparison to Group C (246.8 ± 225 vs 89.7 ± 128 , P-value = 0.0001) but not *versus* Group B ($p = 0.472$); however, the sFlt-1/PlGF ratio was significant higher in Group B than in Group C (181.8 ± 116 vs 89.7 ± 128 , P-value = 0.008).

Conclusions. Our data confirm the potential use of this biomarkers in clinical practice to identify preeclampsia in women suspected clinically to have and guide clinicians in the surveillance and management of these clinical conditions.