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SFLT-1 / PLGF RATIO: A NOVEL TOOL FOR THE MANAGEMENT OF WOMEN WITH SUSPECTED PREECLAMPSIA

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Preeclampsia is a potentially life-threatening syndrome for the mother and the fetus with high variability in the dynamics of the clinical course. The tools routinely used for diagnosis, blood pressure and urine protein measurement, have low sensitivity and specificity for predicting the course of the disease and the associated adverse outcomes.
An imbalance of the angiogenic markers soluble fms-like tyrosine kinase-1 (sFlt-1) and placental growth factor (PlGF) has been implicated in preeclampsia pathogenesis and high sFlt-1/PlGF ratios have been observed before disease onset.
PROGNOSIS, a multicenter/prospective/double-blind/non-interventional study, investigated the sFlt-1/PlGF ratio measured by Elecsys® automated immunoassays for short-term prediction of preeclampsia and maternal/fetal adverse outcomes in women with suspected preeclampsia at gestational week 24–37. A single cut-off value of 38 was validated: a low sFlt-1/PlGF ratio (?38) predicts absence of preeclampsia/eclampsia/HELLP syndrome for 1 week after the measurement, and a high sFlt-1/PlGF ratio predicts diagnosis of preeclampsia/eclampsia/HELLP syndrome within 4 weeks. The correlation of low and high sFlt-1/PlGF with absence and presence, respectively, of maternal/fetal preeclampsia-related adverse outcomes within 1 and 4 weeks was also demonstrated.
When preeclampsia is suspected, reliable short-term prediction is key to optimize prenatal care. Measurement of the sFlt-1/PlGF ratio supports obstetricians in their assessment of the disease severity and progression and in their decision making for patient management.

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