

Objective:

Hypertension in pregnancy remains one of the commonest attendances at obstetric triage, day assessment units and antenatal clinics and is associated with maternal and perinatal morbidity and mortality. Our aim was to compare our clinical practice to the NICE clinical guidance 'Hypertension in pregnancy' updated in June 2019. We also integrated the results from the pilot implementation for the sFlt-1/PIGF blood test into our clinical practice to determine its local usefulness.

Design:

The clinical data across the quality statements of NICE guidelines (QS 35) and outcomes data was collected using Excel spread sheets proforma and analysed.

Method:

Retrospective review of 26 random cases of suspected pre-eclampsia that were investigated with sFLT-1/PLGF ratio blood test over time period Feb 2020-Feb 2021. We can provide documentation and analysis for selection of each risk category of blood results of sFlt-1/PIGF.

Results and recommendations:

In this limited number of clinical cases, we did not have any serious maternal and perinatal mortality and morbidity with ITU admissions.

In 73% of cases delivery had to be expedited due to hypertension or pre-eclampsia concerns. This resulted in 4 babies (15%) needing admission in NICU due to prematurity. We had 92% compliance with the quality standards in antenatal assessment for risk stratification for preeclampsia and in offering 75-150 mg Aspirin as a preventive tool.

We had 100% compliance with women receiving an integrated package of care to monitor their condition and the full clinical assessments and admissions of women with severe hypertension along with involvement of senior Obstetrician in their care.

There was clear documented evidence of antihypertensive management in all areas from antenatal to post delivery in

almost all cases. However, we found the need to improve our communication of future risks with the women and their GPs to monitor long term health impact and better pre-conception counselling and treatment of essential hypertensive disease.

Clinical outcomes correlated with sFlt-1/PIGF blood test

Higher values of sFlt-1/PIGF ratio were correlated with an increased risk in developing pre-eclampsia and with the severity of disease. Having access to placental growth factor (PIGF)-based testing between 20 to 35 weeks of pregnancy improved personalised management and serious harms and complications were prevented. Low values can significantly help ruling out pre-eclampsia and unnecessary intervention.

Higher PIGF ratio results were associated with a higher severity of preeclampsia, higher length of admission, higher need to expedite delivery, a higher rate of Caesarean section, and a higher premature delivery rate, fetal growth restriction and admission to NICU.

Conclusions:

Overall, we saw good compliance with quality statements of NICE guidance with improvements required in pre and post pregnancy counselling, monitoring for long term impact and communication between hospitals and GP's. Integration of adjuncts as biomarkers testing to accurately diagnose pre-eclampsia helps improve clinical outcomes.

