Validation of sFlt-1/PlGF ratio curves for Mexican population

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Objective

To validate the use of sFlt-1/PlGF ratio curves in Mexican population by audit and fit model.

Methods

This was a cross sectional study. Sera were obtained prospectively from singleton pregnancies; sFlt-1 and PlGF levels (pg/mL) and the ratio were determined (ECLIA by Roche), plotted and described.

Results

128 singleton pregnancies were included at 12-36 weeks gestation (median=28), 80% of them at 16-33 weeks; median maternal age at test was 34 years (range 20-46). The test was requested as a screening tool in 114 pregnancies, and as a diagnostic adjuvant in 14 (10. 9%) cases due to maternal and/or fetal abnormalities detected before the test: IUGR, oligohydramnios, proteinuria, and hypertension. sFlt-1 levels were 45. 3% >p50 and 5. 5% >p95; PlGF levels were 54. 7% p50 and 7. 8% >p95. In the 114 screening tests, the sFlt-1/PlGF ratio ranges from 0. 70 to 118. 53 with 50. 9% >p50 and only 5. 3% >p95. In the 14 diagnostic cases, the sFlt-1/PlGF ratio ranged from 3. 21 to 422. 88; only 4 of them (29%) were abnormal (>p95): the highest ratio (116. 4 MoM) was in a 29 weeks pregnancy complicated with chronic hypertension on diuretic treatment, severe IUGR with oligohydramnios, and with a superimposed preeclampsia diagnosed later on; second highest ratio (72. 9 MoM) was in a 32 weeks pregnancy complicated by IUGR; third highest (20. 5 MoM) in a 28 weeks pregnancy with an atypical HELLP syndrome; and lowest (17. 6 MoM) in a 30 weeks pregnancy with an IUGR fetus. The ratio was

Conclusion

These curves fit well with the distribution of this population sample; further follow-up and a greater number of cases are in project.