

Is 11-14 FMF algorithm risk for PE and SGA affected in women with Antiphospholipid Syndrome starting with aspirin + enoxaparin before 8 weeks?



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The aim of this study was to identify if the 11-14 w FMF algorithm for Preeclampsia (PE) and small for gestational age (SGA) calibrated correctly in women with Antiphospholipid Syndrome (APS) treated with AAS 100 + enoxaparin since pregnancy was confirmed (5-8 weeks)

Evidence from randomized trials show that AAS before 16 w reduces risks of PE. In women with APS, use of AAS+ enoxaparin seems to improve pregnancy outcomes.

The 11-14 w FMF model for PE and SGA has proved to be very predictive in general population and better than other models, specially for PE. Before this study, previous validation of the model was done (2012) at the Austral University Hospital for general population and our results were similar to those described by the FMF group. History of APS increases risk in the FMF model , however we wanted to identify if the estimated risk of placental disfunction could be altered in the APS population receiving antithrombotic therapy before 8 weeks. In this new study ,we wanted to investigate if this model calibrated in the APS subgroup receiving early antithrombotic treatment.

Materials and methods :it is a retrospective cohort study, we revised clinical records and Astraia database from 400 patients that attended Austral University Hospital Argentina between 1/2009 -3/2018. We included 165 pregnancies (25-42 years old)that fulfilled APS diagnosis according to Sidney's criteria and had 11-14 w FMF screening done at the same hospital. Risk assessment for PE or SGA was done according to FMF algorithm. AAS 100mg + enoxaparin 40 mg was started since pregnancy was confirmed (5-8w). Main outcome: preeclampsia or SGA (< 10^{TH} Percentile). We excluded pregnancies with structural disorders or chromosomal abnormalities, infectious diseases that could alter fetal growth, preterm delivery due to other causes except placental disfunction, women without APS Sidney's criteria or incomplete data.

Results

From 400 patients, 165 fulfilled inclusion criteria. 81 patients with APS screened (+) for PE /SGA . Only 20% (17/81)developed placental disfunction. 84 patients with APS screened (--) however in 3/84 (3,5%) this complication occurred. In our APS cohort, the model had a 85% sensitivity and 55% specificity. The false (+) rate was 79% and the false negative rate 3,5% . 59% were correctly classified

Screened risk for PE/SGA	Developped PE or SGA	Not developped PE or SGA	False rate
(+)	17	64	79% False (+)
(-)	3	81	3,5% False (-)

In this preliminary study, in women with APS early treated with AAS + enoxaparin, the estimated risk for PE / SGA according to the 11-14 w FMF algorithm was significantly higher than real one. 79 % of women screened (+) didn't develop placental disfunction. This results could be explained by the fact that antithrombotic treatment started early in pregnancy in women with APS may improve placental disfunction and consequently, reduce estimated risk.

If this results are confirmed by other trials, calibration of the model for the APS subgroup receiving early treatment should be considered.