

Screening for late preeclampsia at 35-38 weeks`gestation

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Objective

To evaluate the performance of screening for pre-eclampsia (PE) at 35-38 weeks' gestation by maternal factors and biophysical factors.

Methods

This was a prospective observational study in singleton pregnancy attending for an ultrasound scan at 35⁺⁰ to 37⁺⁶ weeks as part of routine pregnancy care at our Unit. The dependent variable was PE at term and the independent variables were clinical characteristics of the pregnant women, uterine artery Doppler mean pulsatility index (UtA-PI), and mean arterial pressure (MAP). A univariate and multivariate analysis was performed to determine a PE predictor model.

Results

The study population of 949 pregnancies included 46 (4.8%) that subsequently developed PE. In pregnancies that developed late PE there was an increased maternal age, body mass index (BMI), MAP and UtA-PI. With 10% false positive rate, the late PE detection rate was around 22% using maternal factors alone, which was not improved by the addition of UtA-PI. However, the detection rate of this combined model increased to around 60% with the addition of MAP.

Conclusion

Screening by a combination of maternal factors – maternal age and BMI - and MAP at 35-38 weeks' gestation could identify a high proportion of pregnancies that develop late PE.

