the outcome of women with abnormal result. 43 women had the test.

**Results:** 65% of women had the test for raised blood pressure, 28% and 7% the test was performed for PET symptoms and proteinuria respectively. 16/43 (37%) of women developed PET (12/16 had abnormal PLGF < 100 pg/ml while 4/16 had normal result > 100 pg/ml. 18/ 43 (41.8%) were diagnosed with gestational hypertension (9/18 had abnormal result). 70% of women required antihypertensive medication. 26% had PTB due to severe PET. Mean delivery interval within 14 days noted in women who had PLGF < 12 pg/ml and within 17.5 days when PLGF value ≥ 12 – 99 pg/ml. Eleven women noted their fetuses were small for gestation (8/11 had abnormal PLGF). Nine babies were admitted to the special care baby unit due to prematurity.

**Conclusions:** There were no adverse outcome. Half of women would admit to the hospital regardless result of PLGF based on PET symptoms, blood pressure and urine test. The audit was excellent opportunity to raise obstetrician awareness about the PLGF test and its indications.

## EP01.46
### First trimester uterine artery pulsatility index in a normal pregnancy

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**Objectives:** To determine the range of distribution of first trimester uterine artery pulsatility index (Ut-A PI) in pregnancies uncomplicated with pre-eclampsia (PE) and fetal growth restriction (FGR) and to determine if there is a difference between $12^{+0}$-$12^{+6}$ and $13^{+0}$-$13^{+6}$ distribution.

**Methods:** Along with first trimester aneuploidy- screening, all women underwent Ut-A PI measurement done by FMF protocol (transabdominal approach, mid-sagittal cervical view, level of internal cervical os, PSV > 60 cm/s, angle of insonation < 30°). Mean PI from both uterine arteries was calculated. Women were monitoring throughout the pregnancy. Data from pregnancies uncomplicated with PE and/or FRG were evaluated.

**Results:** Total of 94 women represented data pool: 47 of them were evaluated at $12^{+0}$-$12^{+6}$ week of gestation and the rest 47 at $13^{+0}$-$13^{+6}$ week of gestation. During $12^{+0}$-$12^{+6}$ week of gestation Ut-a PI ranged from 1.0 to 2.8 with mean of 1.8, median of 1.75 and IQR 0.615. Ut-a PI during $13^{+0}$-$13^{+6}$ week of gestation ranged from 0.71-2.74 with mean of 1.57, median of 1.6 and IQR 0.68. The difference in Ut- A PI between these two intervals had p value of 0.007.

**Conclusions:** In a normal i.e. a pregnancy uncomplicated with PE and/or FGR uterine artery pulsatility index is lower in 13+ in comparison with 12+ week of pregnancy (median of 1.6 versus the median of 1.75) which represents a statically significant difference (p < 0.01).

## EP01.47
### Potential implications of using fetal DNA in the evaluation of adverse obstetrics outcomes

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**Objectives:** Cell-free fetal DNA (cffDNA) testing represents the best screening method for common aneuploidies. The proportion of total cffDNA belonging to the fetus (FF, fetal fraction) is a paramount factor in determining the accuracy of cffDNA testing. Research suggests that maternal concentrations of cffDNA also may reflect placental pathology. Aim of this study is to determine the prognostic ability of cffDNA in the prediction of obstetric complications.

**Methods:** This is a retrospective cohort study conducted on all women with singleton pregnancy booked for non-invasive prenatal testing at the outpatient clinic of Fondazione Policlinico Agostino Gemelli IRCCS, Rome, Italy, between January 2018 and May 2020. In our population, the 25° percentile of cffDNA was resulted 7%.

**Results:** Our study group was constituted by 67 women with singleton pregnancies. According with FF percentage, 2 groups were identified: low cffDNA Group with FF ≤ 7% (22.3%) and Normal cffDNA Group with FF > 7% (77.7%). No statistically significant difference was observed between the two groups regarding pregnancy outcomes, maternal and demographical features except for maternal weight and body mass index (BMI). Women with high BMI (≥ 25) had 6 times higher risk than normal weight women of having low FF (Specificity 86.27% (95% CI: 73.7% - 94.3%), ODDs Ratio of 6.28 (95% CI: 1.77-22.23, p: 0,004)). The relationship between maternal BMI and FF percentage is shown in figure 1.

**Conclusions:** In conclusion, our results highlighted the importance of an adequate counselling to pregnant women with high BMI regarding the test reliability and its clinical implications.

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Supporting information can be found in the online version of this abstract

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## EP01.48
### Fetal and maternal Doppler adaptation to maternal exercise during pregnancy: a randomised controlled trial

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**Objectives:** To analyse the longitudinal effect of a supervised mild to moderate physical exercise program during pregnancy on uteroplacental and fetal Doppler parameters.

**Methods:** This is a planned secondary analysis of an RCT, performed at Hospital Universitario de Torrejón, Madrid, Spain. 124 women were randomised from 12+0 to 15+6 weeks of gestation to exercise versus control group. Fetal umbilical artery, middle cerebral artery and uterine artery pulsatility index (PI), were longitudinally collected by Doppler ultrasound assessment throughout gestation, and derived cerebroplacental ratio (normalised by z-score), and maternal mean PI in the uterine arteries (normalised by multiples of the median). Obstetric appointments were scheduled at 12 (Baseline, 12+0-13+5), 20 (19+0-24+2), 28 (26+3-31+3) and 35 weeks (32+6-38+6) of gestation. Generalised Estimating Equations were adjusted to assess longitudinal changes in the Doppler measurements according to the randomisation group.