MATERNAL CHARACTERISTICS OF SEVERE PREECLAMPSIA CASES
Argyridis S, Christofi N, Christofides A.
Obstetrics and Gynaecology clinic, Archbishop Makarios III Hospital, Nicosia, Cyprus

INTRODUCTION
Preeclampsia is defined as new onset hypertension (BP >140/90 mmHg) and either proteinuria (>300mg/24h urine collection) or end organ damage (renal or renal dysfunction, etc) after the 20th week of gestation. It is estimated that 4-5% of all pregnancies will develop preeclampsia and contributes to 10-15% of all direct maternal deaths, with a case-fatality rate of 6.4 deaths per 100 000 cases. It is classified as mild and severe disease. Severe disease is characterized by severe hypertension (BP >160/110 mmHg) and end organ damage signs and symptoms. According to gestational age of appearance it is further classified as early onset (<34/40) and late onset disease (>34/40). Predisposing factors include previous history of preeclampsia (RR 7.2), family history of preeclampsia (RR 2.90), type 1 or type 2 diabetes (RR 3.56), antiphospholipid syndrome (RR 9.72), BMI >26 (RR 2.47), advanced maternal age >40 (RR 1.96), chronic kidney disease and multiple pregnancy (RR 2.93). Monitoring following diagnosis includes platelet count, renal and liver function tests, fetal growth and doppler scans and BP measurement. Management includes antihypertensive medication such as labetalol, nifedipine and hydralazine as first line treatment and in severe, refractory to treatment hypertension with possible fetal and/or maternal compromise, delivery expedient was carried out regardless of gestational age. Severe cases without complications were delivered by 34 weeks. Magnesium sulfate for neuroprotection and eclampsia prevention was initiated prior to delivery and continued for 12-24 hours. Prediction and prevention of the disease is possible based on a combination of maternal history and characteristics, uterine artery doppler studies and estimation of maternal serum PlGF and sFlt1. Aspirin initiated at around 12 weeks up to 36 weeks is currently the only validated method of disease prevention.

MATERIAL
116 severe preeclampsia cases that were referred at the Archbishop Makarios III Obstetric clinic between 2010-2015 and were classified as severe preeclampsia according to the criteria mentioned above. All cases were monitored and managed according to the protocol described.

METHOD
Retrospective analysis of birth registry and patient files was carried out, with recording of patient characteristics such as BMI, age, parity and gestational age of birth to assess possible correlation between maternal characteristics and severe preeclampsia.

RESULTS
Most women were overweight or obese, as 30.86% had a BMI between 25.0-29.9 and 40.74% with a BMI over 30. Overall, 71.6% of women had a BMI above 25, with a mean BMI value of 32.82. The majority of women were nulliparous (61.20%), with parous women divided in para 1 (26.72%), para 2 (2.58%) and para 3 (9.48%). The age distribution showed that the commonest age group is 34-39 (28.30%), 30-34 (24.77%), 25-29 (26.54%), >40 (8.84%), 21-24 (8.84%) and <21 years (2.65%). Gestational age at birth was between 34-37 (38.93%), 32-34 (21.23%), 30-32 (15.04%), 37-41 (10.61%), 28-30 (7.96%), 26-28 (3.53%) and 24-26 (2.65%).

CONCLUSIONS
BMI, parity and maternal age, are all significant risk factors for severe preeclampsia. BMI above 25, nulliparity and age >35 years are shown to be more common in preeclamptic women than in normotensive pregnant women. Maternal characteristics are very important in screening for preeclampsia during 1st antenatal visit, as prevention by aspirin administration is possible. As severe preeclampsia is a major cause of preterm labour, prevention techniques will have a positive effect in lowering preterm rates as well.