**Objectives.** Our study was aimed to discover if adjusting PE risk by FMF calculator during 1st trimester screening and subsequent use of aspirin lowers the PE prevalence during spontaneous and pregnancy after IVF or ICSI.

**Methods.** Patients were divided into three groups according to the method of conception, hypertensive disorders and if prophylaxis took place:
1. 22 patients, who became pregnant spontaneously and who received prophylaxis with low dose aspirin due to high risk of PE development
2. 23 patients after ART procedure on aspirin due to high risk of PE. The risk of PE and indication for aspirin use was calculated by accredited FMF programme by certified specialists
3. 22 patients, whom has not performed PE risk calculation and was not prescribed prophylaxis with low dose aspirin and who subsequently developed pregnancy-associated hypertensive disorders

Uterine artery PI and PAPP-A and pregnancy outcomes were also registered. Univariate data analysis was performed by using SPSS v22 software.

**Results**
Increased maternal BMI is a major risk factor for PE development ($p=0.023$). Method of conception has an impact on the development of hypertensive disorder – the risk is higher if pregnancy has established after IVF procedure ($p<0.001$). Aspirin lowers prevalence of hypertensive disorders and its severeness among patients, who became pregnant after IVF or ICSI procedure ($p<0.001$).

**Conclusions**
The FMF calculator should be used routinely to evaluate the risk of PE development. If FMF calculations are not available aspirin can be recommended for all pregnant with obesity. Aspirin has proved its effectiveness in prophylaxis of hypertensive disorders during pregnancy among IVF and ICSI patients.