Objectives
To compare the predictive role for maternal-neonatal outcome of (a) uterine artery Doppler and (b) International Society for the Study of Hypertension in Pregnancy (ISSHP) preeclampsia diagnostic criteria in hypertensive pregnancy disorders (HPDs; gestational hypertension, chronic hypertension and preeclampsia).

Methods
Retrospective single centre cohort study including 381 singleton pregnancies with HPDs who underwent uterine artery Doppler assessment at admission, from January 2011 to December 2017. The study population was classified according to the presence or absence of uterine Doppler abnormalities and the presence or absence of preeclampsia according to ISSHP. Study outcomes included: composite maternal (HELLP, acute renal failure, pulmonary edema, neurological complications, DIC, placental abruption) and neonatal outcome (low birth weight, IUGR, respiratory distress, intraventricular haemorrhage, sepsis, NEC) and the interval from the admission to delivery.

Results
Maternal composite outcomes: 13.2% of total subjects, 12.9% of them had preeclampsia (p <0.001) and 10% had high resistance in uterine arteries (p = 0.03). Neonatal composite outcomes: 38.3% of total newborns; in 35.2% of the cases mothers had preeclampsia (p<0.001) and in 32% of the cases had uterine arteries with high resistance flow (p<0.001).

Conclusion
This is the first comparison study between the predictive power of the ISSHP definition and uterine artery Doppler. Uterine Doppler velocimetry is a valid predictive test for neonatal adverse outcomes and duration of pregnancy, regardless of the form of HPDs.