**EP04.03** Pregnancies with reversed end-diastolic flow in uterine arteries Doppler

**WL Lau1, AL Liu1, TK Lo2, WK Yung1, WC Leung1**
1. Obstetrics and Gynaecology, Kwong Wah Hospital, Hong Kong SAR, China.
2. Obstetrics and Gynaecology, Princess Margaret Hospital, Hong Kong SAR, China

**Objectives**
To study the prevalence and outcome of pregnancies with reversed end-diastolic flow (REDF) in uterine arteries Doppler in a regional hospital in Hong Kong.

**Methods**
Fetal Doppler and Uterine arteries Doppler study were performed for high risk pregnancies including hypertensive diseases and intrauterine growth retardation (IUGR) in our high risk pregnancy clinics and during hospitalization when appropriate.

**Results**
There were 5 patients with REDF in uterine artery Doppler recorded from 2004 to 2017 in our registry. The total number of maternities was 77103. The estimated prevalence was about 1/15000 maternities. Four of them are unilateral. Progressive deterioration prior to REDF was noted in the second case. Bilateral but transient occurrence was noted in the last case which may be related to the fluctuation in the hypertensive disease. All of them were associated with early onset IUGR/severe hypertensive diseases.

They were delivered by preterm caesarean section between 25 to 31 weeks gestation. One case of neonatal death was related to extreme prematurity at 25wk and abruptio placentae.

**Conclusion**
Reversed end-diastolic flow in uterine arteries Doppler have been reported by Ekici et al (bilateral) in 1996 and Lau et al (unilateral) in 2007.

It is associated with adverse perinatal outcome including severe preeclampsia, early onset IUGR, intrauterine death and neonatal death. It represents the extreme end of the spectrum in terms of the placental insufficiency. Its presence is associated with high chance of adverse maternal and perinatal outcomes warranted close monitoring and timely delivery.