

# ID 4791 - FETAL GROWTH AND PERINATAL OUTCOMES IN PREGNANT WOMEN WITH MATERNAL ARRHYTHMIAS AND BETA-BLOCKER TREATMENT

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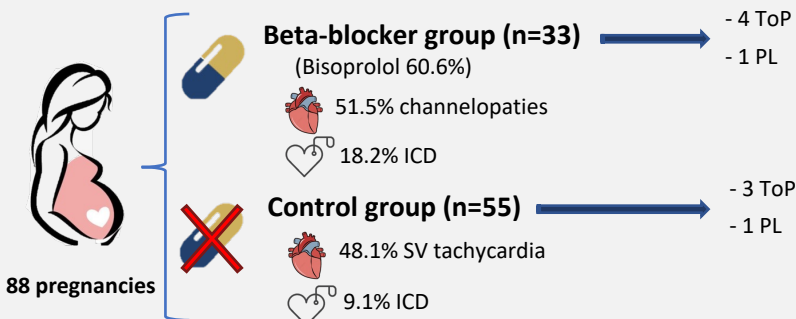
## OBJETIVE

Exposure to beta-blockers during pregnancy has been associated with intrauterine growth restriction (IUGR). Nevertheless, scarce and controversial evidence exists on the vasculoplacental pattern in these fetuses and adverse perinatal outcomes. The aim of the present study was to assess prevalence of IUGR, feto-maternal Doppler and perinatal outcomes in pregnant women with maternal arrhythmia depending on the use of  $\alpha/\beta$ - or  $\beta$ -adrenergic oral blocker.



## METHODS

Retrospective cohort study; Tertiary center Barcelona; March 2012-2023



SV: Supraventricular; ICD: Implantable Cardiac Defibrillator; TP: Termination of Pregnancy; PL: Pregnancy Loss

## PERINATAL OUTCOMES

**Median Birthweight (BW)**  
2953 g vs 3224 g (p.0037\*\*)

**BW < 3rd/10th centile**  
p>0.05

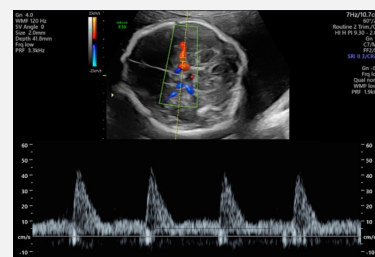
**Gestational age at delivery, rates of preeclampsia, induction of labor, mode of delivery, pH <7, NICU admission**

## SONOGRAPHIC RESULTS

Ultrasound parameters	Beta-blocker group (n=28)	Control group (n=51)	p value
1 <sup>st</sup> trimester UtA PI >95 <sup>th</sup> centile	4 (20%)	0	0.007**
2 <sup>nd</sup> trimester EFW <10 <sup>th</sup> centile	0	1 (2.8%)	0.454
SGA by 28w fetus	0	3 (8.6%)	0.149
SGA by 32w fetus	1 (4.8%)	4 (11.18%)	0.414
SGA > 32w fetus	4 (15.4%)	3 (6.1%)	0.189
IUGR > 32w fetus	4 (15.4%)	2 (4.1%)	0.086
Doppler abnormality > 32w	8 (61.5%)	2 (11.8%)	0.004**

Values shown as number (%) \*\*p<0.05 compared to control group.

UtA PI: Uterine Artery Pulsatility Index; SGA: Small for Gestational Age; CPR: Cerebroplacental Ratio



Late-onset Doppler abnormalities were mainly attributed to an altered CPR.

## CONCLUSIONS

Our findings support a potential relationship between beta-blockers and abnormal placental perfusion. A higher rate of Doppler abnormalities and lower neonatal birthweight was reported, with similar perinatal outcomes. Further and larger studies are needed to assess the role of  $\beta$ -adrenergic blocker treatment in fetal growth restriction patterns.

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