36th ENTIS Conference 11th – 14th Sept 2025
ARISTOTLE UNIVERSITY'S RESEARCH DISSEMINATION CENTER (KEDEA)
THESSALONIKI, GREECE
E-Poster 10

RETROSPECTIVE STUDY ON DRUG EXPOSURE DURING PREGNANCY IN MOTHERS WITH CARDIAC DISEASES AND ASSOCIATED NEONATAL OUTCOMES

AUTHORS

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INTRODUCTION

PREGNANT WOMEN WITH CARDIAC DISEASES REQUIRE SPECIALIZED CARE TO BALANCE MATERNAL AND FETAL RISKS. CARDIOLOGICAL DRUGS ARE COMMONLY USED DURING PREGNANCY, BUT SOME TREATMENTS MAY AFFECT FETAL DEVELOPMENT. THIS STUDY AIMS TO ANALYZE THE EXPOSURE TO CARDIOLOGICAL DRUGS DURING PREGNANCY AND THEIR EFFECTS ON NEONATAL OUTCOMES.

METHODS

STUDY DESIGN

Retrospective study of pregnant women with preexisting or pregnancy-onset cardiac disease, followed by a multidisciplinary team between September 2022 and September 2024

EXCLUSION CRITERIA

Patients without cardiological treatment, those seen in preconception consultations, or those with incomplete pregnancy outcome data.

CLASSIFICATION

Modified World Health Organization (mWHO) classification for pregnant women with heart disease was used to categorize maternal risk from low (Class I) to high risk (Class IV).

DATA COLLECTED

Cardiological treatments prescribed at the beginning of pregnancy were analyzed and followed until neonatal outcomes (birth weight, gestational age, prematurity, neonatal complications, congenital anomalies).

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RESULTS

PATIENT DEMOGRAPHICS

79 PATIENTS IDENTIFIED

46
MET THE INCLUSION CRITERIA
(median BMI: 23.9kg/m²)

PREGNANCY OUTCOMES

25	19	1	1
VAGINAL DELIVERIES	CESAREAN SECTIONS	LATE MISCARRIAGE	MEDICALLY INDICATED TERMINATION FOR MATERNAL RESCUE

MOST PRESCRIBED CARDIOLOGICAL TREATMENTS

BETA-BLOCKERS (N=33; 71.7%)

ANTITHROMBOTIC AGENTS (n=14; 30.4%)

2,895G MEDIAN BIRTH WEIGHT

Class I	Class II	Class III	Class IV
3,402g	2,918g	2,686g	2,361g

38+6W MEDIAN GESTATIONNAL AGE

Class I	Class II	Class III	Class IV
39weeks	35weeks	35weeks	35weeks

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RESULTS

NEONATAL COMPLICATIONS

- **6** INTRAUTERINE GROWTH RESTRICTION
- **7** LOW BIRTH WEIGHT
- **5** PREMATURITY
- **2** EXTREME PREMATURITY AND VERY LOW BIRTH WEIGHT (TWIN PREGNANCY)
- **7** FETAL ARRYTHMIAS
- **4** IMMEDIATE RESPIRATORY DISTRESS

CONGENITAL ANOMALIES

- **1** MICROCEPHALY IN FETUS EXPOSED TO ASPIRIN, BISOPROLOL, LEVOTHYROXINE, ATORVASTATIN (DISCONTINUED AT 6 MONTHS)
- **1** CONGENITAL VENTRICULAR SEPTAL DEFECT AND URETEROPELVIC JUNCTION OBSTRUCTION IN FETUS EXPOSED TO FUROSEMIDE, DAPAGLIFLOZIN, SPIRONOLACTONE (DISCONTINUED EARLY)

CONCLUSION

CARDIAC MATERNAL RISK

Neonatal outcomes, particularly prematurity and birth weight, were **significantly influenced by maternal cardiac risk**.

DRUG USE

Beta-blockers and **anticoagulants** were the most frequently prescribed drugs at the start of pregnancy, and their use may impact **fetal growth** and **neonatal complications**.

FURTHER RESEARCH

The role of beta-blockers remains **unclear** due to confounding risk factors. **Additional research is needed** to better assess the impact of cardiological drugs in pregnant women with heart disease.