# The effects of maternal drug abuse on antenatal and intrapartum foetal cardiotocography

Benedetta **Lupoli** [1], Barbara **Vasapollo** [2,3], Filomena **Maellaro** [1], Giulia **Gatti** [1], Annalisa **Corato** [1], Daniele **Farsetti** [2,3], Francesca **Pometti** [1], Vito **Mondì** [4], Simonetta **Picone** [4], Piermichele **Paolillo** [4], Herbert **Valensise** [2,3]

[1] Division of Obstetrics and Gynecology, Policlinico Casilino, Rome, Italy.
[2] Department of Surgical Sciences, Tor Vergata University, Rome, Italy.
[3] Division of Obstetrics and Gynecology, Policlinico Casilino, Rome, Italy.
[4] Neonatology and Neonatal Intensive Care Unit, Policlinico Casilino, Rome, Italy.

**DOI:** 10.36129/jog.2024.S127

**Objective.** The aim of this study was to evaluate foetal cardiotocographic patterns at admission and during labour, in drug abuse pregnant women.

**Materials and Methods.** This was a retrospective case-control study carried out in Policlinico Casilino Hospital- University of Rome Tor Vergata. 20 consecutive drug-addict patients who delivered between June 2021-november 2023 (Group A) were compared with a group of 20 women with a physiological pregnancy matched for age and gestational age (Group B) who delivered in the same period. Cardiotocographic (CTG) traces at admission and during labour were retrospectively analysed according to FIGO guidelines by 2 independent expert investigators. Student t-test and chi-square test were used to compare the two groups, $p < 0.05$ was considered significant.

**Results.** Cocaine and cannabinoids were the most frequent drugs in Group A. CTG at admission did not show any difference between the two groups in terms of baseline foetal heart rate baseline (135 ± 10 *vs* 139 ± 9 bpm, p = ns), variability (5-25 bpm in both groups), presence of accelerations (20/20 in both groups) and decelerations (2/20 *vs* 3/20, p = ns). There were no differences in the rates of type 1 (85% *vs* 90%, p = ns), type 2 (15% *vs* 5%, p = ns) and type 3 (0% *vs* 5%, p = ns) traces during labour between Group A and B.

**Conclusions.** In our study, the substance abuse during pregnancy and near delivery did not appear to influence cardiotocographic patterns: CTG, therefore, did not allow the identification of these patients.