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#### **REVIEW**

# Impact of cocaine use in pregnant women: a comprehensive look from the perspective of health and rights

Impacto del consumo de cocaína en mujeres embarazadas: una mirada integral desde la salud y los derechos

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#### **ABSTRACT**

The study addressed cocaine use during pregnancy as a complex problem, involving biomedical, social, legal and ethical factors. It analysed how this substance affected maternal and foetal health, causing obstetric complications such as hypertension, premature birth and intrauterine growth retardation. In addition, the barriers faced by pregnant women in accessing health services due to stigmatisation and fear of legal reprisals were described. The Argentine regulatory framework was also examined, which, although it recognised consumption as a health issue, failed to prevent punitive practices in reality. Finally, the need to implement inclusive public policies, centred on comprehensive support and respectful of human and reproductive rights, was highlighted.

Keywords: Cocaine; Pregnancy; Public Health; Stigmatisation; Rights.

### **RESUMEN**

El estudio abordó el consumo de cocaína durante el embarazo como una problemática compleja, atravesada por factores biomédicos, sociales, legales y éticos. Se analizó cómo esta sustancia afectó la salud materna y fetal, provocando complicaciones obstétricas como hipertensión, parto prematuro y retraso del crecimiento intrauterino. Además, se describieron las barreras que enfrentaron las mujeres gestantes para acceder a servicios de salud debido a la estigmatización y al temor a represalias legales. También se examinó el marco normativo argentino, que si bien reconoció el consumo como una cuestión de salud, no logró evitar prácticas punitivas en la realidad. Finalmente, se destacó la necesidad de implementar políticas públicas inclusivas, centradas en el acompañamiento integral y respetuosas de los derechos humanos y reproductivos.

Palabras clave: Cocaína; Embarazo; Salud Pública; Estigmatización; Derechos.

#### **INTRODUCTION**

Drug use during pregnancy represents a complex public health problem where biomedical, social, legal, and ethical aspects converge. In particular, cocaine use in pregnant women has been widely studied because of its harmful impact on both the mother and the fetus and because of its association with situations of social vulnerability, stigmatization, and barriers to access to health care. Addressing this issue requires an interdisciplinary approach that considers not only the clinical consequences of drug use but also the regulatory frameworks in force and the human rights involved. This analysis aims to delve into the effects of cocaine use during pregnancy, its relationship with various obstetric complications, the Argentine legal context, and the

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public policies needed to ensure comprehensive care, free of prejudice and punitivism.

#### **DEVELOPMENT**

The use of illicit drugs during pregnancy is a complex problem, affected by multiple individual, social, and structural risk factors. Cocaine, one of the most frequently consumed substances, along with cannabis and opioids, has been noted for its harmful effects at both maternal and fetal levels.<sup>(1)</sup>

From a pharmacological point of view, cocaine acts as a presynaptic reuptake inhibitor of dopamine, norepinephrine, and serotonin, generating intense sympathetic activation. This hyperstimulation of the nervous system can devastate the maternal cardiovascular system and placental circulation. (2) According to Chang (3), this drug can induce uterine vasoconstriction, maternal hypertension, and alterations in coagulation, factors that directly contribute to complications such as placental abruption, premature rupture of membranes, and preterm delivery.

At the epidemiological level, a progressive increase in cocaine use among pregnant women has been identified in several countries. A study in France showed a sustained increase from 2005 to 2018, being more frequent among young and socially vulnerable women. (4) In Uruguay, Moraes Castro et al. (5) showed that between 2013 and 2016, self-reported use of cocaine derivatives increased among pregnant women, especially in contexts of low access to prenatal controls.

The social and family environment plays a key role. Exposure to domestic violence, cohabitation with partners who use drugs, and lack of psychosocial support are factors highly associated with substance use during pregnancy. (6) In addition, it has been documented that many of these women present psychiatric disorders such as depression or postpartum psychosis, which can be aggravated by drug use. (7)

About obstetric complications, the literature points to intrauterine growth retardation (IUGR), low birth weight, spontaneous abortion, and placental abruption as some of the most frequent consequences of cocaine use in pregnant women. (8,9) Ahamohammadi and Zafari (10) describe that these complications are directly linked to the maternal hemodynamic alteration caused by the drug.

Regarding eclampsia, although its prevalence is not the highest, several studies warn about its association with cocaine use, especially in women with a history of hypertension or poor prenatal follow-up. (11) The relationship between substance use and severe maternal morbidity has also been described by Jarlenski et al. (12), who highlighted that substance use disorders significantly increase the risk of serious complications during pregnancy and puerperium.

On the other hand, stigmatization and fear of legal consequences cause many women to omit declaring their consumption or not to seek medical attention, thus perpetuating a circle of risk and exclusion. (13,14)

In this sense, a comprehensive approach combining medical care, mental health, and social accompaniment has been proposed to reduce maternal and neonatal complications associated with substance use. This approach emphasizes that early and unbiased access to health services can make a substantial difference in obstetric outcomes. (15,16)

In Argentina, the use of psychoactive substances, including cocaine, does not in itself constitute a criminal offense when it refers to personal use. This perspective is based on the ruling of the Supreme Court of Justice of the Nation in the "Arriola" case (2009), which declared the unconstitutionality of criminalizing the possession of drugs for personal use in private settings, appealing to the constitutional guarantee of personal autonomy (Art. 19, National Constitution).

However, the scenario becomes more complex when consumption occurs during pregnancy since different dimensions overlap: the health of the mother, the rights of the fetus, and the best interests of the unborn child. In this sense, the Argentine legal system has undergone intense debates on the scope of prenatal rights, especially in the framework of public health legislation, the right to comprehensive health, and international human rights treaties. (17,18)

The national regulatory framework recognizes the protection of maternity and childhood as a state obligation. Law 26.061 on Comprehensive Protection of the Rights of Children and Adolescents and Law 26.485 on Comprehensive Protection to Prevent, Punish and Eradicate Violence against Women emphasize the need to guarantee effective access to health and social services without discrimination, including in situations of problematic substance use.<sup>(19)</sup>

Likewise, the National Mental Health Law (Law 26.657) introduces a paradigm shift by recognizing problematic substance use as a health issue and not as a criminal problem. This law promotes a comprehensive, interdisciplinary, and community-based approach and establishes that no person can be discriminated against or suffer restrictions on their rights simply because they use drugs. Article 4 of this law is clear in stating that "addictions must be approached from the health field."

Despite this progressive framework, in practice, many pregnant women who use substances suffer indirect criminalization or forced institutionalization, especially in contexts of poverty or social exclusion. Studies such as those by Veras Eloy Santos et al.<sup>(6)</sup> and Moraes Castro et al.<sup>(5)</sup> warn that the stigmatization of these women

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can generate barriers to access to prenatal check-ups and health services, which reinforces their situation of vulnerability.

From a human rights perspective, the Committee on the Elimination of Discrimination against Women (CEDAW) has recommended that state parties -including Argentina- avoid punitive practices towards pregnant women who use substances and instead implement public policies focused on protection, support, and access to health care.

In addition, the recent update of the "Protocol for the Comprehensive Approach to People with Problematic Substance Use" of the National Ministry of Health establishes specific lines of intervention for pregnant women, emphasizing the need to guarantee access to prenatal check-ups, psychological care, and social support networks, without criminalization or exclusion from the health system.

Finally, it is necessary to consider that, although cocaine use during pregnancy is not criminalized, its use can be indirectly prosecuted under civil or family law, particularly in "protection of rights" cases when it is considered that the health of the unborn child is at risk. This situation puts the principle of women's autonomy in tension with the intervention of the State. It demands a careful ethical-legal analysis that respects both reproductive rights and the best interests of the child.

# **CONCLUSIONS**

Cocaine use during pregnancy involves several significant clinical risks and is part of a complex web of social, psychological, and legal factors that affect maternal and fetal health. Despite regulatory advances that promote a comprehensive health and human rights approach, institutional practices persist that tend to criminalize or exclude pregnant women who use substances. Faced with this reality, it is essential to strengthen public policies that guarantee early, continuous, and non-punitive access to health services from a gender and rights perspective. Only a comprehensive and inclusive approach can reduce the associated morbidity and effectively protect both the woman and the unborn child within a framework of respect for autonomy, dignity, and equity.

# **BIBLIOGRAPHIC REFERENCES**

- 1. Cook JL, Green CR, de la Ronde S, et al. Epidemiology and Effects of Substance Use in Pregnancy. J Obstet Gynaecol Can. 2017;39(10):906-15. Available from: https://pubmed.ncbi.nlm.nih.gov/28935056/
- 2. Gorelick DA. Cocaine use disorder in adults: Epidemiology, pharmacology, clinical manifestations, medical consequences, and diagnosis. 2021. Available from: https://www.uptodate.com/contents/cocaine-use-disorder-in-adults-epidemiology-pharmacology-clinical-manifestations-medical-consequences-and-diagnosis
- 3. Chang G. Substance use during pregnancy: Overview of selected drugs. 2021. Available from: https://www.uptodate.com/contents/substance-use-during-pregnancy-overview-of-selected-drugs
- 4. Blayac L, Ponte C, Lavaud M, Micallef J, Lapeyre-Mestre. Increase of cannabis and cocaine use by pregnant women in France from 2005 to 2018: Insights of the annual cross sectional OPPIDUM survey. Therapie. 2023 Mar-Apr;78(2):201-11. Available from: https://pubmed.ncbi.nlm.nih.gov/36283856/
- 5. Moraes Castro M, Pinto F, Pereiras C, Fischer A, Vogel C, Duarte V, et al. Autodeclaración del consumo de marihuana, tabaco, alcohol y derivados de cocaína en embarazadas en 2013 y 2016, Montevideo, Uruguay. Adicciones. 2020;32(3):173-80. Available from: https://www.adicciones.es/index.php/adicciones/article/view/1107/1020
- 6. Veras Eloy Santos J, Fonseca da Silva NA, Marcolela Andreoli Sartes L, Bohrer Schuch J, Paim Kessler FH, Barbosa Terra M. Psychiatric and obstetric characteristics of pregnant crack users admitted to a referral center in Southern Brazil. J Addict Dis. 2023. Available from: https://pubmed.ncbi.nlm.nih.gov/38047869/
- 7. Silva Moreira DJ, Santos IM, Azevedo Dunningham W. A exposição ao crack durante a gestação e suas repercussões maternas, fetais e neonatais: uma revisão sistemática. Rev Neuropsiq. 2022;26(3):84-90. Available from: https://www.revneuropsiq.com.br/rbnp/article/view/946
- 8. Dutra AGR, Oliveira AG de, Carneiro BAP, Medeiros EC, Veiga KGC, Lima RSG, et al. Complicações gestacionais relacionadas ao uso de drogas por gestantes. Rev Acervo Mais. 2021;35:e8702. Available from: https://acervomais.com.br/index.php/cientifico/article/view/8702
  - 9. Elkafrawi D, Sisti G, Araji S, Khoury A, Miller J, Rodriguez Echevarria B. Risk Factors for Neonatal/

Maternal Morbidity and Mortality in African American Women with Placental Abruption. Medicina (Kaunas). 2020;56(4):174. Available from: https://pubmed.ncbi.nlm.nih.gov/32295061/

- 10. Ahamohammadi A, Zafari M. Crack abuse during pregnancy: maternal, fetal and neonatal complication. J Matern Fetal Neonatal Med. 2016;29(5):795-7. Available from: https://pubmed.ncbi.nlm.nih.gov/25747949/
- 11. Hoang T, Czuzoj-Shulman N, Abenhaim HA. Pregnancy outcome among women with drug dependence: A population-based cohort study of 14 million births. J Gynecol Obstet Hum Reprod. 2020;49(7):101741. Available from: https://pubmed.ncbi.nlm.nih.gov/32438133/
- 12. Jarlenski M, Krans EE, Chen Q, et al. Substance use disorders and risk of severe maternal morbidity in the United States. Drug Alcohol Depend. 2020;216:108236. Available from: https://pubmed.ncbi.nlm.nih.gov/32846369/
- 13. Samudio Domínguez GC, Correa A, Brítez Martínez IC, Vera Quintana LM, Ortiz Cuquejo LM. Frecuencia de consumo de drogas adictivas ilícitas en gestantes o puérperas y su detección en recién nacidos en un hospital materno-infantil de Asunción. Pediatr (Asunción). 2023;50(1):48-57. Available from: https://www.revistaspp.org/index.php/pediatria/article/view/747
- 14. Naciones Unidas. Claves del Informe Mundial sobre Drogas: récord de consumo de cocaína y nuevos opioides sintéticos. 2024. Available from: https://news.un.org/es/story/2024/06/1530826
- 15. Hetea A, Cosconel C, Stanescu AAM, Simionescu AA. Alcohol and Psychoactive Drugs in Pregnancy. Maedica (Bucur). 2019;14(4):397-401. Available from: https://pubmed.ncbi.nlm.nih.gov/32153672/
- 16. Salemi JL, Raza SA, Modak S, Fields-Gilmore JAR, Mejia de Grubb MC, Zoorob RJ. The association between use of opiates, cocaine, and amphetamines during pregnancy and maternal postpartum readmission in the United States: A retrospective analysis of the Nationwide Readmissions Database. Drug Alcohol Depend. 2020;210:10796. Available from: https://pubmed.ncbi.nlm.nih.gov/32278846/
- 17. Garrison-Desany HM, Ladd-Acosta C, Hong X, et al. Addressing the smoking-hypertension paradox in pregnancy: insight from a multiethnic US birth cohort. Precis Nutr. 2023;2(2):e00035. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10312115/
- 18. Jenabi E, Salimi Z, Bashirian S, Khazaei S, Ayubi E. The risk factors associated with placenta previa: An umbrella review. Placenta. 2022;117:21-7. Available from: https://pubmed.ncbi.nlm.nih.gov/34768164/
- 19. Villarreal M, Belmonte V, Olivares JL, Abdala A. Health trajectories of women who used cocaine and/or cannabis during pregnancy. Retrospective cohort study in La Pampa, Argentina. [Spanish] Rev Fac Cien Med Univ Nac Cordoba. 2020 May 10;77(2):79-85. Available from: https://pubmed.ncbi.nlm.nih.gov/32558509/..

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#### **AUTHORSHIP CONTRIBUTION**

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