Prenatal marijuana exposure and neonatal outcomes in Jamaica: an ethnographic study

pubmed.ncbi.nlm.nih.gov/8121737

Abstract

Objective: To identify neurobehavioral effects of prenatal marijuana exposure on neonates in rural Jamaica.

Design: Ethnographic field studies and standardized neuro-behavior assessments during the neonatal period.

Setting: Rural Jamaica in heavy-marijuana-using population.

Participants: Twenty-four Jamaican neonates exposed to marijuana prenatally and 20 nonexposed neonates.

Measurements and main results: Exposed and nonexposed neonates were compared at 3 days and 1 month old, using the Brazelton Neonatal Assessment Scale, including supplementary items to capture possible subtle effects. There were no significant differences between exposed and nonexposed neonates on day 3. At 1 month, the exposed neonates showed better physiological stability and required less examiner facilitation to reach organized states. The neonates of heavy-marijuana-using mothers had better scores on autonomic stability, quality of alertness, irritability, and self-regulation and were judged to be more rewarding for caregivers.

Conclusions: The absence of any differences between the exposed on nonexposed groups in the early neonatal period suggest that the better scores of exposed neonates at 1 month are traceable to the cultural positioning and social and economic characteristics of mothers using marijuana that select for the use of marijuana but also promote neonatal development.

Similar articles

- Five-year follow-up of rural Jamaican children whose mothers used marijuana during pregnancy.
  Hayes JS, Lampart R, Dreher MC, Morgan L. West Indian Med J. 1991 Sep;40(3):120-3. PMID: 1957518

- Neonatal neurological status in a low-risk population after prenatal exposure to cigarettes, marijuana, and alcohol.
  Fried PA, Watkinson B, Dillon RF, Dulberg CS. J Dev Behav Pediatr. 1987 Dec;8(6):318-26. PMID: 3429670

- Exposure to marijuana during pregnancy alters neurobehavior in the early neonatal period.
  de Moraes Barros MC, Guinsburg R, de Araújo Peres C, Mitsuhiro S, Chalem E, Laranjeira RR. J Pediatr. 2006 Dec;149(6):781-7. doi: 10.1016/j.jpeds.2006.08.046. PMID: 17137892

- Behavioral outcomes in preschool and school-age children exposed prenatally to marijuana: a review and speculative interpretation.
  Fried PA. NIDA Res Monogr. 1996;164:242-60. PMID: 8809875 Review. No abstract available.

- Phytocannabinoids, CNS cells and development: a dead issue?
  Downer EJ, Campbell VA. Drug Alcohol Rev. 2010 Jan;29(1):91-8. doi: 10.1111/j.1465-3362.2009.00102.x. PMID: 20078688 Review.

Cited by *9 articles*

- Cannabis and breastfeeding.
  Graves L. Paediatr Child Health. 2020 Jun;25(Suppl 1):S26-S28. doi: 10.1093/pch/pxaa037. Epub 2020 Jun 15. PMID: 32581628 Review.

- Beliefs and attitudes regarding prenatal marijuana use: Perspectives of pregnant women who report use.
  Chang JC, Tarr JA, Holland CL, De Genna NM, Richardson GA, Rodriguez KL, Sheeder J, Kraemer KL, Day NL, Rubio D, Jarlenski M, Arnold RM. Drug Alcohol Depend. 2019 Mar 1;196:14-20. doi: 10.1016/j.drugalcdep.2018.11.028. Epub 2019 Jan 11. PMID: 30658220 Free PMC article. Clinical Trial.

- Association of cord blood levels of lead, arsenic, and zinc and home environment with children neurodevelopment at 36 months living in Chitwan Valley, Nepal.
  Parajuli RP, Umezaki M, Fujiwara T, Watanabe C. PLoS One. 2015 Mar 24;10(3):e0120992. doi: 10.1371/journal.pone.0120992. eCollection 2015. PMID: 25803364 Free PMC article.

- It's not your mother's marijuana: effects on maternal-fetal health and the developing child.
  Warner TD, Roussos-Ross D, Behnke M. Clin Perinatol. 2014 Dec;41(4):877-94. doi: 10.1016/j.clp.2014.08.009. Epub 2014 Sep 27. PMID: 25459779 Free PMC article. Review.

- Lasting impacts of prenatal cannabis exposure and the role of endogenous cannabinoids in the developing brain.
  Wu CS, Jew CP, Lu HC. Future Neurol. 2011 Jul 1;6(4):459-480. doi: 10.2217/fnl.11.27. PMID: 22229018 Free PMC article.