Maternal Marijuana Use: Effects on Neonatal Abstinence Syndrome Withdrawal and Treatment

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A recent rise in the use of opioids during pregnancy in the United States has resulted in an increase in neonatal abstinence syndrome (NAS). The effects of opioid use during pregnancy on newborn behavior are well described. However, the effects of other drugs, such as marijuana (THC) on opioid withdrawal symptoms and neonatal treatment have not been investigated. We used a clinical database of 429 mothers who delivered their babies at the Medical University of South Carolina (MUSC) and compared neonatal morphine treatment among newborns of mothers who used marijuana and opioids versus opioids alone. There is a significant difference in the morphine treatment of newborns between the two opioid using groups, and an even greater difference between the need for morphine treatment in infants only exposed to THC in utero and the opioid groups. Newborns who tested positive for THC and opioids had a lower probability of being diagnosed with NAS than those who tested positive for opioids alone. Statistical significance was found in the difference between the two groups regarding the diagnostic variable. Neonates of opioid-using mothers experienced less withdrawal if their mothers also used marijuana, than those infants exposed only to opioids, as measured by requiring treatment with morphine. The lower possibility of newborns being diagnosed with the syndrome draws parallels with the presence of THC having a prevention effect. Concomitant maternal marijuana use may lower the possibility of opioid-exposed infants experiencing severe abstinence symptoms after birth, along with the infant not being diagnosed with NAS.

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