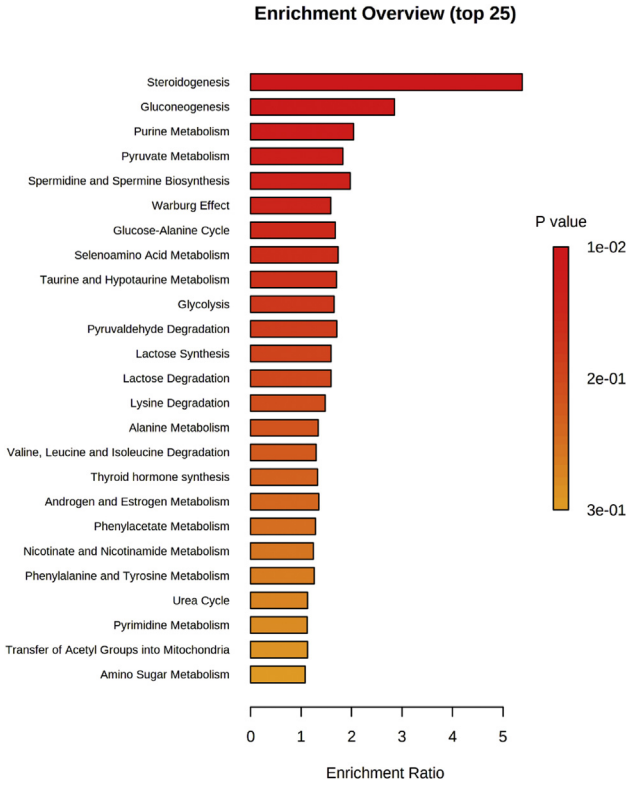
glucose production through gluconeogenesis resulting in higher oxidative metabolism and energy generation. Ceramides are known to have anti-inflammatory properties. Elevated hypoxanthine has also been correlated with tissue hypoxia and inflammation.

CONCLUSION: We found evidence of intrauterine stress, altered energy metabolism and inflammation in fetal life in cases of maternal COVID-19 infection but ultimately negative newborn culture. Elucidation of long-term consequences is imperative considering the large number of exposures in the population.



MODEL	AUC (95% CI)	Sensitivity % (95% CI)	Specificity % (95% CI)
Cortisol + Ceramide (d18:1/20:0)	0.839 (0.722 ~ 0.956)	91.7%	69.2%
Cortisol + Ceramide (d18:2/20:0) + Hypoxanthine	0.778 (0.643 ~ 0.914)	66.7%	72.7%

45 Discordance between maternal and newborn drug screening at delivery

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OBJECTIVE: To evaluate the concordance between maternal urine and newborn meconium drug testing during delivery admission.

STUDY DESIGN: This retrospective cohort study identified women presenting for delivery from January 2017 to March 2021 with indications for drug testing (i.e., known history or current substance use disorder/misuse, late or no prenatal care). All women were consented and a standardized panel was used for maternal urine and newborn meconium testing. The primary outcome was concordance of drug testing between maternal urine and newborn meconium. Maternal demographics and pregnancy behaviors were collected. Statistical analysis included Chi square and student t-tests with significance levels of $p < 0.05$.

RESULTS: Of the 327 women identified, maternal urine drug testing resulted in 187 (57%) positive, 98 (30%) negative, and 42 (13%) with incomplete data. Newborn meconium drug testing was positive in 273 (83%), negative in 42 (13%), and not performed in 12 (4%). Overall, there were 187 maternal/neonatal dyads with 77 (41%) concordant urine/meconium drug testing results. Concordance in urine/meconium testing did not change frequency of neonatal abstinence syndrome (concordant NAS 87% v discordant NAS 82%; p=0.32). Concordance of urine/meconium occurred more frequently in male newborns (65%) compared to female newborns (35%; $p < 0.01$). Comparison of urine and meconium tests for the 11 individual substances resulted in 195/483 (40%) concordance. Notably, 89/483 (18%) were discordant with positive maternal urine, and 199/483 (41%) were discordant with newborn positive meconium (Table 1). Oxycodone and fentanyl were noted to have a significant discordance with positive maternal urine, while cannabis was the significant factor leading to discordance with positive newborn meconium. Iatrogenic positive testing did not account for discordance.

CONCLUSION: Maternal urine and newborn meconium drug screening concordance was lower than expected. Due to the social and legal ramifications of these results, it is important for clinicians to recognize the limitations of testing, including the risk of discordance.

Table 1: Comparison of maternal urine and neonatal meconium drug test results stratified by substance

Substance	Concordant: Urine positive and Meconium positive	Discordant: Urine positive and Meconium negative	Discordant: Urine negative and Meconium positive
Amphetamine	9 (2.8%)	14 (4.3%)	10 (3.1%)
Barbiturate	1 (0.3%)	1 (0.3%)	2 (0.6%)
Cannabis	10 (3.1%)	7 (2.1%)	23 (7.0%)*
Cocaine	21 (6.4%)	3 (0.9%)*	14 (4.3%)
Benzodiazepine	8 (2.4%)	16 (4.9%)	13 (4.0%)
Methadone	15 (4.6%)	2 (0.6%)*	7 (2.1%)*
Opiates	34 (10.4%)	7 (2.1%)*	34 (10.4%)
PCP	0 (0%)	0 (0%)	5 (1.5%)
Oxycodone	3 (0.9%)	10 (3.1%)*	1 (0.3%)
Fentanyl	2 (0.6%)	23 (7.0%)*	7 (2.1%)
Buprenorphine	92 (28.1%)	6 (1.8%)*	83 (25.4%)
Total	195	89	199

Positive tests presented as a proportion of all mother/baby dyads (n=327)
A positive test can occur for multiple substances in urine or meconium
* p>0.05

46 Maternal influenza vaccination elicits transplacental transfer of hemagglutinin stem-specific IgG

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OBJECTIVE: Hemagglutinin (HA) glycoprotein is the dominant antigen of current influenza vaccines and antigenic drift requires a