1-2023

Higher rates of false-positive HIV antigen/antibody screens during the COVID-19 pandemic: implications for pregnant patients

Madison E. Miller

Rachel Cevigney

Mariam Ayyash

Majid Shaman

Monica Kole

Table 2: Proportion of preterm birth within each treatment group stratified by gestational age at delivery

Outcome	No treatment	IM 17-OHPC	P-value	Vaginal	P-value
PTB < 37 weeks	22.3%	29.1%	0.076	14.3%	0.33
PTB 34 0/7 – 36 6/7	15.7%	17.2%	0.69	7.1%	0.22
PTB 28 0/7 – 33 6/7	4.2%	7.4%	0.13	7.1%	0.64
PTB 20 0/7 – 27 6/7	2.4%	4.4%	0.29	0.0%	0.65

PTB = preterm birth

1075 Higher rates of false-positive HIV antigen/antibody screens during the COVID-19 pandemic: implications for pregnant patients

Madison E. Miller[1], Rachel Cevigney[2], Mariam Ayyash[3], Majid Shaman[4], Monica Kole[1]

[1]Henry Ford Health, Detroit, MI, [2]Wayne State School of Medicine, Detroit, MI, [3]Henry Ford Health System, Detroit, MI, [4]Henry Ford Health System, W Bloomfield, MI

OBJECTIVE: To compare the rates of false-positive HIV 4th generation screens among pregnant patients before and during the COVID-19 pandemic.

STUDY DESIGN: A retrospective study evaluating the rates of false-positive HIV 4th generation screens among 44,187 pregnant patients was conducted. Pregnant patients from 3/2017-3/2019 were assigned to the "pre-COVID" cohort, and pregnant patients from 3/2020-3/2022 were assigned to the "COVID" cohort. Data including the date(s) and results of HIV 4th generation Ag/Ab combination tests and SARS-CoV-2 RT-PCR assays were ascertained via chart review. An HIV 4th generation test result was deemed "false-positive" if subsequent HIV-1/HIV-2 antibody differentiation immunoassays and/or HIV-1 nucleic acid tests were non-reactive.

RESULTS: 42/22,073 (0.19%) patients with pre-COVID pregnancies who had HIV 4th generation tests were found to have abnormal results. In comparison, 71/22,114 (0.32%) patients with pregnancies during the pandemic had abnormal test results. 16/42 (38.1%) patients with abnormal results pre-COVID had false-positive HIV screens. In comparison, 48/71 (67.6%) COVID cohort patients with abnormal results had false-positive HIV screens. Overall, the rate of false-positive HIV 4th generation tests was significantly higher in the COVID cohort compared to the pre-COVID cohort (p=0.002). Among the 48 patients with false-positive HIV screens in the COVID cohort, 13 (27.1%) had a PCR-proven COVID-19 diagnosis during pregnancy preceding their false positive result. Interestingly, 9/13 patients (69.2%) also had at least one negative HIV 4th generation screening result predating their COVID-19 diagnosis.

CONCLUSION: Considering the maternal and neonatal implications of a positive HIV test result, OB/GYNs should be cognizant that false-positive results can occur in the setting of new/prior COVID-19 infections. Shared decision making should be used when considering the initiation of combination antiretroviral therapy, route of delivery and/or delay of breastfeeding for patients with a newly positive HIV 4th generation tests, particularly in the absence of other risk factors.

1076 Outcomes after prenatal (Fetoscopic and open) and postnatal repair for spina bifida by 30 months

Magdalena Sanz Cortes[1], Rebecca Johnson[1], Ahmed A. Nassr[2], roopali V. donepudi[2], Jimmy Espinoza[3], William Whitehead[4], Michael A. Belfort[5]

[1]Baylor College of Medicine and Texas Children's Hospital, Houston, TX, [2]Baylor College of Medicine, Houston, TX, [3]McGovern Medical School at the University of Texas Health Science Center Houston. The Fetal Center-Children's Memorial Hermann Hospital , Houston, TX, [4]Texas Children's Hospital/Baylor College of Medicine, Houston, TX, [5]Texas Children's Hospital, Houston, TX

OBJECTIVE: To compare outcomes of fetuses who underwent a laparotomy-assisted fetoscopic repair against those who underwent open fetal surgery or postnatal repair.

STUDY DESIGN: Retrospective cohort study of 191 patients who underwent spina bifida repair between 2011-2021 at a single center. Patients were eligible for prenatal repair using MOMS criteria (BMI up to 40kg/m^2). Method for in utero repair was based on patient's decision. Fetoscopic repair was performed by using CO_2 uterine insufflation and two trocar insertion into the uterine cavity. Postnatally-repaired cases were eligible for prenatal surgery from a fetal standpoint.

RESULTS: A total of 112 fetoscopic, 39 open fetal surgery and 40 postnatal repaired cases were included. Fetoscopic (15.2%) and open (12.8%) repaired cases had a lower rate of clubfeet than in postnatal repair (32.5%; p=0.01 and p=0.03). (Table 1)

In the fetoscopic group, surgeries occurred later [25.1(22.9-26.4) vs 24.9(21.3-25.6) weeks; p< 0.01], they were longer (253.95 ± 48.66 vs 154.49 ± 24.45 minutes; p< 0.01) and hospital stays were shorter [5(3-49) vs 6(4-18) days; p< 0.01] than in the open group.

Gestational age at delivery was more advanced in the fetoscopic [37.9 (25.1-40.9)weeks] and postnatal repair [38.5(33.7-39.9) weeks] groups than in open cases [35.7 (26.4-37.9)weeks; p< 0.01 and p< 0.01].

Cesarean delivery was more frequent in open than in fetoscopic cases (100% vs 48.6%; p< 0.01) and in the former, it was more frequent to find areas of thinning or dehiscence at the time of C-section (38.7% vs 0%; p< 0.01).

Fetoscopic (38.9%) and open (30.3%) repaired cases had a significantly lower rate of hydrocephalus treatment than after postnatal repair (72.5%; p< 0.01 and p< 0.01) by 12 months.

At 30 months, no differences in ambulation were observed between fetoscopic and open cases. Both groups had significantly better ambulatory skills than postnatally repaired cases (Table 2)

CONCLUSION: Laparotomy-assisted fetoscopic repair approach provides significant benefits to the mother and the baby and provides equivalent neurosurgical outcomes than the open fetal surgery approach.