

rather than a preceding dehiscence from an expanding gravid uterus.

Histologically, Nitabach's layer as the boundary of compact endometrium and the cytotrophoblast is composed of fibrin. The placenta is rich in enzymatic activity, and destruction of this layer may precipitate more aggressive invasion; studies have shown that disruption between plasminogen activators and their inhibitors in the placenta may lead to the formation of accreta.<sup>4</sup> Lastly, the hypothesis that sole disruption of the basal layers of the endometrium through prior surgical manipulation (cesarean delivery or curettage), removing this boundary of further invasion, does not account for the placenta accreta spectrum documented in the primigravid patient, nor in women who have not had manipulation of the endometrial layer.<sup>5</sup>

Current hypothesis of the disorder may be controversial, and it seems to continue to be very much a chicken-or-the-egg situation. I applaud the authors in their pursuit of improving morbidity and mortality with this potentially disastrous disorder. Continued discussion and further research into this pathology may assist in improved risk stratification and delivery optimization in the management of this spectrum.

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## REFERENCES

1. Einerson BD, Comstock J, Silver RM, Branch DW, Woodward PJ, Kennedy A. Placenta accreta spectrum disorder: uterine dehiscence, not placental invasion. *Obstet Gynecol* 2020;135:1104–11.
2. Kaser DJ, Melamed A, Bormann CL, Myers DE, Missmer SA, Walsh BW, et al. Cryopreserved embryo transfer is an independent risk factor for placenta accreta. *Fertil Steril* 2015;103:1176–84.e2.
3. Sabre A, Rashid W, Arul M, Gaither K, Jones C. Early second trimester incomplete abortion with undiagnosed placenta accreta encountered as an acute gynecological emergency: a case

report. *Int J Pregn Child Birth* 2019; 5:177–8.

4. Uszyński W, Uszyński M. Placenta accreta: epidemiology, molecular mechanism (hypothesis) and some clinical remarks [in Polish]. *Ginekol Pol* 2004; 75:971–8.
5. Rajkumar B, Kumar N, Srinivasan S. Placenta percreta in primigravida, an unsuspected situation. *Int J Reprod Contracept Obstet Gynecol* 2014;3:239–41.

## In Reply:

Thank you to the authors of two letters for interest in our Current Commentary in the May 2020 issue, which makes a call to abandon the concept of placental invasion as the primary pathophysiologic mechanism in placenta accreta spectrum disorders.<sup>1</sup>

We echo the authors' call for a new and improved presurgical staging and would propose that depth of invasion is not relevant in such a system. Degree of pelvic hypervascularity, location and degree of uterine scar dehiscence, and (more difficult to quantify preoperatively) the extent of pelvic adhesive disease together make up a more complete risk assessment for intraoperative hemorrhage in patients with accreta spectrum.

We applaud the work of Drs. Palacios-Jaraquemada and D'Antonio and their colleagues in creating a presurgical ultrasound staging system that accounts for many of these factors.<sup>2</sup> Improvement, validation, and demonstrated reproducibility of presurgical staging systems are needed.

In response to Dr. Sabre, we agree that initial trophoblastic invasion is necessary for implantation of the early pregnancy. In an abnormal space—deep in a scar or adjacent to the bladder—that adherence is pathologic. We posit that, after implantation, placenta accreta spectrum severity or progression is largely the result of uterine factors (dehiscence, abnormal hypervascularity, adhesive disease), not malignant trophoblastic growth.

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## REFERENCES

1. Einerson BD, Comstock J, Silver RM, Branch DW, Woodward PJ, Kennedy A. Placenta accreta spectrum disorder: uterine dehiscence, not placental invasion. *Obstet Gynecol* 2020;135:1104–11.
2. Cali G, Forlani F, Lees C, Timor-Tritsch I, Palacios-Jaraquemada J, Dall'Asta A, et al. Prenatal ultrasound staging system for placenta accreta spectrum disorders. *Ultrasound Obstet Gynecol* 2019;53:752–60.

## Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Vertical Transmission in Neonates Born to Mothers With Coronavirus Disease 2019 (COVID-19) Pneumonia

In the Research Letter by Hu et al<sup>1</sup> published in the July 2020 issue, the authors conclude that vertical transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection occurred on the basis of one throat swab conducted in a neonate born to a mother with SARS-CoV-2 infection. The newborn's throat swab, blood, feces, and urine subsequently tested negative at an unspecified later interval. Although



evidence of vertical transmission of the virus is not strictly ruled out in this case, the data presented on this neonate are insufficient to confidently posit vertical transmission.

Viral testing of potential sources of vertical transmission provides a better chain of evidence that a positive test result in a newborn is a result of transplacental transmission. Other studies have employed placental, cord blood, and amniotic fluid samples in this regard.<sup>2</sup> If Hu et al had positive test results of such samples at time of delivery, the claim of vertical transmission would be convincing. Although there has been a case report in the literature of a neonate who tested negative after delivery and tested positive 24 hours later, the authors support their claim with a SARS-CoV-2-positive amniotic fluid sample.<sup>3</sup> Other studies have provided neonatal virus-specific immunoglobulin M (IgM) as evidence of vertical transmission,<sup>4,5</sup> although rapid reduction in virus-specific IgM may limit the reliability of those claims.<sup>6</sup> Hu et al's claim relies solely on one test at one time point.

American Academy of Pediatrics guidelines recommend testing neonates born to mothers who have tested positive for SARS-CoV-2 infection and mothers under investigation at 24 hours of life, with a repeat test at 48 hours of life.<sup>7</sup> This is a strategy aimed at ruling out transient colonization in an early positive test result. It would appear that the authors of these guidelines expect a transient colonization to clear by 24 hours, whereas a true viral infection would persist.

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## REFERENCES

1. Hu X, Gao J, Luo X, Feng L, Liu W, Chen J, et al. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vertical transmission in neonates born to

mothers with coronavirus disease 2019 (COVID-19) pneumonia. *Obstet Gynecol* 2020;136:65-7.

2. Wang C, Zhou YH, Yang HX, Poon LC. Intrauterine vertical transmission of SARS-CoV-2: what we know so far. *Ultrasound Obstet Gynecol* 2020;55:724-5.
3. Zamaniyan M, Ebadi A, Aghajanoor MS, Rahmani Z, Haghshenas M, Azizi S. Preterm delivery in pregnant woman with critical COVID-19 pneumonia and vertical transmission. *Prenat Diagn* 2020 [Epub ahead of print].
4. Dong L, Tian J, He S, Zhu C, Wang J, Liu C, et al. Possible vertical transmission of SARS-CoV-2 from an infected mother to her newborn. *JAMA* 2020;323:1846-8.
5. Zeng H, Xu C, Fan J, Tang Y, Deng Q, Zhang W, et al. Antibodies in infants born to mothers with COVID-19 pneumonia. *JAMA* 2020;323:1848-9.
6. Kimberlin DW, Stagno S. Can SARS-CoV-2 infection be acquired in utero? More definitive evidence is needed. *JAMA* 2020 [Epub ahead of print].
7. Puopolo KM, Hudak ML, Kimberlin DW, Cummings J. Initial guidance: management of infants born to mothers with COVID-19. Itasca (IL): American Academy of Pediatrics; 2020.

## Examining Inequities Associated With Changes in Obstetric and Gynecologic Care Delivery During the Coronavirus Disease 2019 (COVID-19) Pandemic

We appreciate the thoughtful commentary by Onwuzurike et al<sup>1</sup> in the July 2020 issue on inequities in the coronavirus disease 2019 (COVID-19) pandemic. Their piece promotes the recognition of existing health inequities and working to counteract them within the systemic responses to combat COVID-19. They highlight the disproportionate effect of the virus among people of color, low-wage workers, immigrants, and those who are uninsured or underinsured.

Our objective is to encourage the authors and readers to extend their consideration of the effects of inequities on health to include women in the criminal justice system, those with substance use disorders, and those lacking stable housing. High rates of severe acute respiratory syndrome

coronavirus 2 (SARS-CoV-2) infection have been reported among homeless and incarcerated individuals who live or are confined without adequate physical distancing, proper hand hygiene, or protective equipment.<sup>2-4</sup> Patients requiring medications for opioid use disorder may face disruptions in care and decreased access, increasing the risk of relapse and overdose.

Some of the steps taken to mitigate risk during the COVID-19 pandemic could also mitigate some of the damaging effects of stigma, mass incarceration, and inequities reified through the pandemic. For example, restrictions on telehealth for people with substance use disorders have been relaxed. Numerous states have made efforts to return incarcerated people with nonviolent offenses or high-risk medical conditions to the community. New York, Massachusetts, and California have created strategies to house previously homeless individuals. Despite these efforts, many of our patients will experience health insurance disruptions, homelessness, substance use relapse, and overdose during this pandemic and afterward.

As obstetrician-gynecologists, we must recognize that women with substance use disorders, unstable housing, and histories of incarceration are in our practices and in our communities. It is imperative that we screen to identify women with high-risk social histories and connect them with housing, mental health, and substance use disorder resources. Coronavirus disease 2019 presents unique opportunities to challenge existing criminal justice, housing, and substance use treatment policies to reduce their gendered, classist, and racist effects. As physicians for reproductive justice, we must harness the insights garnered from the pandemic to advocate for policies that continue these novel approaches to housing, decarceration, and substance use treatment.

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