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The impact of lockdown on maternal and neonatal morbidity in gestational diabetes mellitus



OBJECTIVE: In France, during the 2020 COVID-19 pandemic lockdown, maternal and pregnancy care had to adapt to government rules. Consequently, many institutions provided remote consultations. This study aimed to examine the impact of the lockdown on maternal and fetal morbidity in pregnant women with gestational diabetes mellitus (GDM).

STUDY DESIGN: A retrospective single-center study was performed, comparing 2 groups: patients with GDM during the COVID-19 lockdown from March 18, 2020 to May 7, 2020 (lockdown period) and patients with GDM during the same interval in 2019 (prelockdown period). These data were analyzed anonymously, and our database was declared to the French Committee for Computerized Data (CNIL 21/846). All pregnant patients who were followed up for GDM during the 2 periods were included. In the prepandemic period, patients diagnosed with GDM attended a day clinic where they were taught about GDM. During the 2020 lockdown, all consultations were initially remote (via telemedicine). Patients entered their data in myDiabby software (myDiabby Healthcare, Bordeaux, France) following the same protocol.¹ Online demonstrations, educational videos, and remote consultations were made available to patients. Pregnancy, maternal, labor, and neonatal characteristics were recorded and compared between the 2 groups.

RESULTS: A total of 384 patients were included: 203 in the prelockdown period and 181 in the lockdown period. The 2 groups were similar. Compared with prelockdown, lockdown was associated with more GDM treated with insulin (33% vs 45.9%; odds ratio [OR], 1.58; 95% confidence interval [CI], 1.016–2.444; $P=0.042$), a higher rate of cesarean deliveries (23.2% vs 33%; OR, 1.65; 95%

CI, 1.03–2.65; $P=0.037$), and more neonatal macrosomia with birthweights >4000 g (6.9% vs 15.5%; OR, 2.49; 95% CI, 1.23–5.02; $P=0.010$) (Table). There were no significant differences in other labor morbidities. Patient engagement with remote consultations and glycemic monitoring was not affected by lockdown in this study.

CONCLUSION: During the lockdown period, glycemic control was poorer than in the same period the year before.² Insulin had to be administered more often in 2020 to restore appropriate glucose levels although the patient engagement rate for remote consultations was not significantly affected by lockdown. It is well known that GDM treated with insulin is responsible for many obstetrical and neonatal complications.³ Thus, another effect of the lockdown was a higher number of cesarean deliveries, with a 1.6 times higher risk of having a cesarean delivery, and birthweights >4000 g. Poor glycemic control may be responsible for the rise in scheduled and emergency cesarean deliveries, causing more fetal macrosomia and more fetal distress during labor.⁴ Lifestyle plays an enormous role in glycemic control; during lockdown, physical activity was reduced, and patient diets and psychological aspects were negatively affected.⁵ In conclusion, these results show that in situations of confinement with difficult access to face-to-face consultations (lockdown, imprisonment, disability, etc.), the focus should be on improving the monitoring of glucose levels to have better glycemic control and reduce maternal and neonatal comorbidities in pregnant patients with GDM. The liberal use of insulin may be necessary to achieve optimal outcomes. Telemedicine and apps such as myDiabby cannot entirely replace the healthcare team but are significant assets to have in these situations. ■

TABLE

Comparison of the maternal, labor, and neonatal comorbidities during pregnancy and per partum between the prepandemic (2019) and lockdown period (2020)

Comorbidities	Prepandemic period (2019) N = 203	Lockdown period (2020) N = 181	P value	P value after adjusted analysis and OR ^a
Maternal morbidities^b				
Excessive weight gain	51 (25.4)	44 (24.3)	.81	
GDM treated with insulin	67 (33.0)	83 (45.9)	.010 ^c	.04 ^c , OR=1.57 (1.02–2.44)
Self-monitoring of blood glucose	174 (88.3)	163 (92.6)	.16	
Attendance at remote consultations	177 (89.8)	163 (92.6)	.35	
Hospital admissions	50 (24.6)	37 (20.4)	.33	.33
• For unbalanced GDM	5 (2.5)	5 (2.8)	1	
• For risk of premature birth	9 (4.4)	3 (1.7)	.12	
Hypertensive disorders during pregnancy	13 (6.4)	9 (5.0)	.55	
Labor outcome^b				
Term at delivery (wk+d)	39+3 (39; 40+4)	39+3 (39; 40+3)	.65	
Labor induction	70 (34.5)	71 (39.2)	.34	.42
• For unbalanced GDM	18 (9.0)	25 (13.9)	.13	.14
Instrumental birth	28 (13.8)	27 (14.9)	.75	.39
Third- or fourth-degree perineal tears	6 (3.0)	4 (2.2)	.75	
Cesarean delivery	47 (23.2)	58 (33)	.033 ^c	.03 ^c , OR=1.65 (1.03–2.65)
• Scheduled cesarean delivery	14 (6.9)	19 (10.6)	.20	
• Emergency cesarean delivery	33 (16.3)	39 (21.9)	.16	.14
Postpartum hemorrhage	29 (14.3)	32 (17.8)	.35	.45
• Severe >1L	6 (3.0)	12 (6.6)	.089	
Neonatal outcome^b				
Birthweight >4000 g	14 (6.9)	28 (15.5)	.008 ^c	.01 ^c , OR=2.49 (1.24–5.02)
Neonatal arterial pH <7.10	18 (9.0)	24 (13.5)	.17	.20
Apgar score <8	2 (1.0)	7 (3.9)	.090	
NICU admission	7 (3.5)	5 (2.8)	.70	
Neonatal hypoglycemia	41 (20.5)	24 (13.3)	.064	.06

BMI, body mass index; GDM, gestational diabetes mellitus; NICU, neonatal intensive care unit; OR, odds ratio.

^a Adjusted analysis of patient characteristics (age, parity, BMI, weight gain); ^b Results are median (interquartile range) or number (percentage). Between-group comparisons were made using the chi square or Fisher exact test for categorical variables, and the Mann–Whitney U test for continuous variables. $P \leq .05$ was considered statistically significant; ^c Significant result.

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Who loses access to legal abortion with a 6-week ban?



OBJECTIVE: With the recent overturning of *Roe vs Wade* by the United States Supreme Court, some states are now banning abortion at any stage of pregnancy. Others have laws that ban abortion after detection of embryonic cardiac activity,¹ at approximately 6 weeks (42 days) of gestation. Under such laws, those who learn of pregnancy at or after 6 weeks will have no legal, in-state option to end pregnancy.

STUDY DESIGN: We surveyed adults seeking medication or procedural abortions at 7 clinics in Ohio between April 2020 and April 2021. We captured participants' reported dates of pregnancy discovery, clinic contact and termination, and gestation at termination. We assessed correlates of pregnancy discovery after 6 weeks' gestation, and used a binary threshold of <6 weeks 0 days vs ≥6 weeks 0 days, although cardiac activity can be detected as early as 5 weeks 5 days.² All participants

provided informed consent, and the project was approved by the University of Cincinnati Institutional Review Board.

RESULTS: The response rate was 24%. Among n=1141 participants, 25% discovered their pregnancy after 6 weeks' gestation; they had significantly lower income ($P=.02$) and lower educational attainment ($P=.05$) than those who detected pregnancy before 6 weeks. Young ($P=.09$) or unmarried ($P=.09$) participants were also somewhat more likely to detect pregnancy after 6 weeks (Table). Racial disparities reflecting structural racism were also evident, with Black respondents having been somewhat more likely to discover pregnancy after 6 weeks ($P=.08$).

Overall, median gestation at pregnancy discovery was 34 days (Table). Median time between discovery and clinic contact was similar between the groups with pregnancy discovery before and after 6 weeks (3 vs 2 days, respectively; $P=.41$). Median time from discovery to termination was significantly longer among