PERINATAL JOURNAL

Original Article

Perinatal Journal 2022;30(1):61–65

Impact of COVID-19 on termination of pregnancy

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Abstract

Objective: To evaluate the impact of COVID-19 pandemic on termination of pregnancy.

Methods: This was a retrospective study aimed to assess the impact of COVID-19 pandemic on termination of pregnancy in a single center in Italy. Consecutive data on pregnant women who requested induced termination of pregnancy (I-TOP) from February 2018 to December 2021 were included in a dedicated database. The data were divided into two groups according to the COVID-19 outbreak. Women who requested I-TOP from February 2018 to January 2020 were included into the group *'before COVID-19 pandemic'*. Women who requested I-TOP from February 2020 to January 2022 were included into the group *'during COVID-19 pandemic'*. Indications for I-TOP included elective abortion and therapeutic for fetal or maternal indication.

Results: A total of 2578 women were included in the study. Of them, 1637 had I-TOP before COVID-19, and 941 had I-TOP during COVID-19. During the pandemic, the request for elective abortion decreased from 76.2% to 67.7% (p<0.01). Therapeutic abortion were performed in 141/693 cases in the first trimester, and in 552/693 cases in the second trimester. Overall, 91 were for maternal indications and 602 for fetal indications. No differences were noticed between before and during pandemic (p=0.99). Follow-up visits two weeks after abortions were offered to all women. However, only 35.5% women visited for follow-up during pandemic vs. 65.0% before COVID-19 (p<0.01).

Conclusion: The COVID-19 pandemic had impact on access to abortion services, reducing request for elective abortion and post-abortion follow-up visits.

Keywords: COVID-19, induced termination of pregnancy, abortion, miscarriage, curettage.

Introduction

Coronaviruses (CoVs) are the largest group of viruses belonging to the Nidovirales order. They are enveloped, non-segmented positive-sense RNA viruses.[1] The Novel Coronavirus (2019-nCoV), also known as Wuhan coronavirus, causes the 2019-nCoV acute respiratory disease or COVID-19 or SARS-CoV-2.[2]

The COVID-19 outbreak poses significant risk to public health.[3] In obstetrics and gynecology, COVID-19 pandemic is associated with significantly higher risk of maternal and perinatal complications,[4–15] but also challenges and issues about organizing labor and delivery unit,[16–18] training program,[19] and vaccination.[20–23] Family planning services may be also affected by COVID-19 pandemic.[24] A health system response for family planning services during the pandemic, including telemedicine, is important to avoid unwanted pregnancies and prevent additional mortality and morbidity of women.[25,26] Currently, there is no lack of information on the impact of the COVID-19 pandemic on abortion access and indications.

Thus, the aim of this study was to evaluate impact of COVID-19 pandemic on termination of pregnancy.

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How to cite this article: Ferrara C, Sglavo G, Morra I, Saccone G, Di Carlo C, Bifulco G. Impact of COVID-19 on termination of pregnancy. Perinat J 2022;30(1):61–65. doi:10.2399/prn.22.0301013

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Methods

Study design

This was a retrospective study aimed to assess the impact of COVID-19 pandemic on termination of pregnancy (abortion) performed at a single center in Italy (University of Naples Federico II, Napoli, Italy). Consecutive data on pregnant women who requested induced termination of pregnancy (I-TOP) from February 2018 to January 2022 were included in a dedicated database. The data were divided into two groups according to the COVID-19 outbreak. Women who requested I-TOP from February 2018 to January 2020 were included into the group *'before COVID-19 pandemic'*. Women who requested I-TOP from February 2020 to January 2022 were included into the group *'during COVID-19 pandemic'*. Inclusion criteria were pregnant women undergoing I-TOP. Women with spontaneous abortion or second trimester loss were excluded from the analysis. Indications for I-TOP included elective abortion and therapeutic abortion for fetal or maternal indication. We also evaluated methods of abortion, either surgical or medical.

Elective abortion, or nontherapeutic abortion, was defined as abortion done because a woman chooses to end the pregnancy.[27–31] In Italy, elective abortion is allowed until 12 weeks and 6 days. In our institution, elective abortion was performed either with medical approach or surgical approach. Surgical approach in the first trimester was performed by dilation and curettage with or without vacuum aspiration. Medical approach in the first trimester was performed using oral mifepristone 600 mg followed by oral misoprostol 400 mcg every 4 hours.[32]

Therapeutic abortion is allowed in Italy until 21 weeks and 6 days.[27–31] In our institution, second trimester abortion was performed using oral mifepristone followed by oral or vaginal misoprostol.

Statistical analysis

The data are shown as mean with standard deviation, or as number (percentage). Descriptive statistics were calculated for sociodemographic characteristics. Univariate comparisons of dichotomous data were performed with the use of the chi-square with continuity correction. Comparisons between groups to test group means with standard deviation were performed with the use of the t-test by assuming equal within-group variances. A 2-sided p-value less than .05 was considered significant. Statistical analysis was performed using Statistical Package for Social Sciences (SPSS) v. 19.0 (IBM Inc., Armonk, NY, USA).

Results

A total of 2578 women were included in the study. Of them, 1637 had I-TOP before COVID-19, and 941 had I-TOP during COVID-19.

During the pandemic, the request for elective abortion decreased from 76.2% to 67.7% (p<0.01). Therapeutic abortion was performed in 141/693 cases in the first trimester, and in 552/693 cases in the second trimester. Overall, 91 were for maternal indications and 602 for fetal indications (**Table 1**). No differences were noticed between before and during pandemic (p=0.99).

Follow-up visits two weeks after abortions were offered to all women. However, only 35.5% women visited for follow-up during pandemic vs. 65.0% before COVID-19 (p<0.01).

Discussion

This study evaluated impact of COVID-19 pandemic on indication for termination of pregnancy. The study showed that COVID-19 reduced request for elective abortion, while did not impact on therapeutic I-TOP. COVID-19 had also a negative impact on follow-up, reducing post-abortion visits.

This study had several limitations. The sample size is small. The single-center study design raises the question of external generalizability. Because of its retrospective nature, it was not possible to separate the importance of the pandemic versus other confounders that may have affected the results.

The COVID-19 pandemic is a public health crisis that generated social, political, economic, and psychological consequences. In pregnant women, COVID-19 is associated with increased risk of maternal and perinatal complications.[7,33–35] Access to abortion care can be restricted by numerous logistical and financial barriers, and the COVID-19 pandemic may intensify many challenges that abortion service face in providing their services.[36] In our setting, abortion unit remained open during the pandemic proving abortion care, counselling,

Table 1. Details of the abortions.

	Before COVID-19 (n=1637)	During COVID-19 (n=941)	p-value
First trimester I-TOP			
Therapeutic abortion	88/1637 (5.4%)	53/941 (5.6%)	0.78
Elective abortion	1248/1637 (76.2%)	637/941 (67.7%)	**<0.01**
Second trimester I-TOP (therapeutic abortion)	301/1637 (18.4%)	251/941 (26.7%)	**<0.01**
Overall elective abortion	1248/1637 (76.2%)	637/941 (67.7%)	**<0.01**
Overall therapeutic I-TOP	389/1637 (23.8%)	304/941 (32.3%)	**<0.01**
Therapeutic I-TOP for fetal indications	338/389 (86.9%)	264/304 (86.8%)	0.99
Therapeutic I-TOP for maternal indications	51/389 (13.1%)	40/304 (13.2%)	0.98
First trimester surgical abortion	418/1336 (31.3%)	301/690 (43.6%)	**<0.01**
First trimester medical abortion	918/1336 (68.7%)	389/690 (56.4%)	**<0.01**
Follow-up visit after abortion	1064/1637 (65.0%)	334/941 (35.5%)	**<0.01**

The data are presented as number (percentage). **I-TOP:** induced termination of pregnancy. **Bold data:** statistically significant.

and follow-up visits. The reducing request for elective abortion may be caused by different conditions linked to the pandemic. Access to the hospital was restricted to family members and care givers, and visitors. Women can be afraid to go to general medical visit, with less gynecologic visits, including contraception counselling, and missed pregnancy test before 13 weeks, being the gestational age cut-off allowed in Italy for elective abortion.

Prior studies evaluated the impact of COVID-19 on abortion services.[36–40] Tu et al. showed that the pandemic was associated with increased intention of seeking induced abortion due to social factors.[38] Kaller et al.[39] showed that the COVID-19 pandemic caused several disruptions to abortion service availability in India, including lockdowns. To reduce in-person visit time, some clinics shifted to offering medication abortion (versus procedural) or telehealth. In a cohort analysis of abortion requests made through the telemedicine abortion service Women on Web (WoW), almost half of the women and pregnant people having an abortion through WoW reported experiencing obstacles to abortion care because of COVID-19.[40]

Conclusion

In summary, the COVID-19 pandemic had impact on access to abortion services, reducing request for elective abortion and post-abortion follow-up visits. Policies or protocols improving abortion access are urgently required.

Funding: This work did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Compliance with Ethical Standards: The authors stated that the standards regarding research and publication ethics, the Personal Data Protection Law and the copyright regulations applicable to intellectual and artistic works are complied with and there is no conflict of interest.

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