Invited commentary on “The impact of the first wave of the COVID-19 pandemic on hospital admissions and treatment management of ectopic pregnancy”

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I had the privilege to review with great interest the paper of Gurbuz et al.[1] which has been published in the current issue of Turkish Journal of Emergency Medicine. I congratulate the authors for their effort in trying to answer an important question. The research design is acceptable, and the statistical analysis is adequate. Their retrospective descriptive study of a single center in Turkey compares the admitted women with ectopic pregnancy during the first 10 weeks of the COVID-19 pandemic with the 114 weeks before the pandemic. There were 116 patients during the first period (one patient per week) compared with 57 patients during the 10 early weeks of the pandemic (5.7 patients per week). The delay of the ectopic pregnancy diagnosis resulted in more ruptures during the pandemic compared with the pre-pandemic period (28.1% compared with 11.2%). Laparotomy was applied to all patients during the pandemic while more than 70% had laparoscopy before the pandemic. The early recommendations of the World Society of Emergency Surgery which indicates that laparoscopy is a high-risk aerosol-generating procedure[2] which may increase the risk of infection. The retrospective nature of the study, the small sample size, being from a single center, and the finding of a dramatic increase of the cases (by 6 times) without a clear explanation weaken the strength of the findings.

The management of infectious disasters has four phases which are preparedness, mitigation, response, and recovery.[3,4] The short COVID-19 studied period of the current study[1] covers the mitigation (reducing the impact by restricting the movement) and the response phases and may have selection bias. It would have been better to have a longer study period with a larger number of patients (multicentric or national data) which would permit a proper time series analysis to study changes over time than just compare two periods.

A recent systematic review and meta-analysis[5] have shown that delivery during the COVID-19 pandemic slightly increased from 48% to 54% of all obstetrical and gynecological hospital admissions including an increase of ectopic pregnancy from 1.8% to 2%. Patients, being afraid of COVID-19 infection, would avoid seeking health care unless really needed.[5] Fear was more during the early stages of...
the pandemic because of the severity of the disease, high infection rate, and lack of effective treatment or vaccine. The lockdown and stay-home policy reduced the mobility of the community. We have recently shown the reduced number of road traffic collisions and trauma hospitalization in our setting during the pandemic. Nevertheless, those hospitalized trauma patients had more severe injuries with increased hospital deaths. The lockdown and stay-home policy reduced the mobility of the community. We have recently shown the reduced number of road traffic collisions and trauma hospitalization in our setting during the pandemic. Nevertheless, those hospitalized trauma patients had more severe injuries with increased hospital deaths. Nevertheless, those hospitalized trauma patients had more severe injuries with increased hospital deaths.

The increased percentage of ectopic pregnancies reported in the current study must be considered with caution. This increase was not related to increased pregnancies. There was a large drop in births associated with conceptions during the first several months of the pandemic. Although COVID-19 infection is associated with worse pregnancy outcomes, it is unlikely, by common sense, to have a direct effect on the pathology of ectopic pregnancy itself. Furthermore, the authors did not report the percentage of those who had COVID-19 infection comparing them with non-CVOD-19 patients.

Finally, I would like to thank the authors for addressing an important area. Nevertheless, I disagree that “it is impossible to carry out a prospective investigation on this concept.” I am confident that prospective cohort studies are possible within infectious disease disasters as demonstrated by one of our recent global studies. Research should be an integral part of preparedness and response plans for any infectious disease disaster which will produce more evidence that can help us plan the mitigation, response, and recovery of future disasters.

**Author contribution statement**

Fikri Abu-Zidan reviewed the published manuscript, read the literature, and wrote the commentary.

**Conflicts of interest**

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**References**