

Regarding "Understanding the "Scope" of the Problem: Why Laparoscopy is Considered Safe During the COVID-19 Pandemic"

Reza Aminnejad MD , Alireza Salimi MD , Ehsan Bastanhagh MD

PII: S1553-4650(20)30218-1
DOI: <https://doi.org/10.1016/j.jmig.2020.04.030>
Reference: JMIG 4130



To appear in: *The Journal of Minimally Invasive Gynecology*

Received date: 12 April 2020
Revised date: 16 April 2020
Accepted date: 17 April 2020

Please cite this article as: Reza Aminnejad MD , Alireza Salimi MD , Ehsan Bastanhagh MD , Regarding "Understanding the "Scope" of the Problem: Why Laparoscopy is Considered Safe During the COVID-19 Pandemic", *The Journal of Minimally Invasive Gynecology* (2020), doi: <https://doi.org/10.1016/j.jmig.2020.04.030>

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. Please note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Title Page

Regarding "Understanding the "Scope" of the Problem: Why Laparoscopy is Considered Safe During the COVID-19 Pandemic"

Reza Aminnejad, MD^{*1,2}, Alireza Salimi, MD², Ehsan Bastanagh, MD³

- 1- Department of Anesthesiology and Critical Care, Qom University of Medical Sciences, Qom, Iran.
- 2- Department of Anesthesiology and Critical Care, Shahid Beheshti Medical University, Tehran, Iran.
- 3- Department of Anesthesiology and Critical Care, Tehran University of Medical Sciences, Tehran, Iran.

Corresponding author: Reza Aminnejad, Assistant Professor of Anesthesiology and Critical Care. Email: r.aminnejad@yahoo.com, Phone: +989123098598

Keywords: COVID-19; SARS-CoV-2; Surgical plume; Laparoscopy; Infection; Virus transmission; Trendelenburg position

Authors' contributions

Study conception/design: all authors

Drafting of article: RA

Revising of article critically for important intellectual content: AS, EB

Final approval of the version to be published and agreement to be accountable for all aspects of the work: all authors

Declaration of interest

The authors declare that they have no conflicts of interest. The study had no sponsor.

Funding

None.

Dear Editor,

We read the editorial entitled "Understanding the "Scope" of the Problem: Why Laparoscopy Is Considered Safe During the COVID-19 Pandemic" recently published in the journal with great interest.(1) In recent weeks anesthesiologists are at the frontline of the fight against COVID-19 particularly at the time of airway management. When we are talking about a surgery, surgeons and other operating room medical personnel are at risk of infection at the same time. Postponing all unnecessary surgeries during COVID-19 pandemic has become a standard of care today, but there are still many cases in which it is not possible to delay surgery. It makes sense that as much as we care about the patient, we care about the health of the staff. Under normal circumstances, laparoscopic approaches may be of great benefit to the patient, but in a crisis caused by a respiratory infection, the situation will definitely be different. The major route of transmission for SARS-CoV-2 is respiratory droplets and the most dangerous situation for health care workers is laryngoscopy and intubation. Therefore, avoiding general anesthesia, which requires airway management (e.g. intubation), is one of the most important ways to protect them.(2, 3) Thus, local methods such as neuraxial blocks are superior to general techniques of anesthesia. Because most laparoscopic surgeries require requirements such as Trendelenburg positioning, which is best done under general anesthesia, laparoscopic approaches cannot be insisted on as much as before for surgeries.

On the other hand, we are at risk of the virus spreading due to the process itself. It is true that due to restrictions on feasibility of research, no case of virus transmission through surgical plume or smoke has been proven yet, but no research has been conducted that refutes such a possibility. The presence of the virus RNA in the stool has been proven nearly half of patients even after the patient has recovered.(4) Furthermore the possibility of virus shedding in urine is another concern.(5) In this way, no space in the abdominopelvic cavity can be considered virus-free and importing a laparoscopic trocar to any point of this space carries the risk of spreading the virus throughout the operating room by gas insufflation. However, in the interaction between the anesthesiologist and the surgeon if the benefits of this technique outweigh the potential harms, laparoscopy can be performed by considering appropriate precautions which is mentioned in the article to reduce the risk of virus transmission as much as possible.

References:

1. Morris SN, Fader AN, Milad MP, Dionisi HJ. Understanding the "Scope" of the Problem: Why Laparoscopy is Considered Safe During the COVID-19 Pandemic. *Journal of minimally invasive gynecology*. 2020.
2. Cohen SL, Liu G, Abrao M, Smart N, Heniford T. Perspectives on Surgery in the time of COVID-19: Safety First. *Journal of minimally invasive gynecology*. 2020:S1553-4650(20)30172-2.
3. Ti LK, Ang LS, Foong TW, Ng BSW. What we do when a COVID-19 patient needs an operation: operating room preparation and guidance. *Canadian journal of anaesthesia = Journal canadien d'anesthesie*. 2020:1-3.
4. Cheung KS, Hung IF, Chan PP, Lung KC, Tso E, Liu R, et al. Gastrointestinal Manifestations of SARS-CoV-2 Infection and Virus Load in Fecal Samples from the Hong Kong Cohort and Systematic Review and Meta-analysis. *Gastroenterology*. 2020.
5. Wu ZS, Zhang ZQ, Wu S. Focus on the "Crosstalk" Between COVID-19 and Urogenital Systems. *The Journal of urology*. 2020:101097ju0000000000001068.