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Minimally Invasive Surgery at the Time of COVID-19: The OR Staff Needs Protection



To the Editor:

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory coronavirus 2 (SARS-CoV-2) in humans. In January 2020, the World Health Organization formally declared it as a Public Health Emergency of International Concern and on March 11, 2020, the World Health Organization declared it as a pandemic [1]. COVID-19 is highly infectious, having infected more than 100'000 people in 100 countries [2]. The pandemic has changed our lives dramatically, people are working from home, mass transit is down, and cities are doomed. Medicine is changing too, because many physicians and resources are specifically dedicated to the COVID-19 emergency. Although medical treatment is changing, with the tendency to avoid surgery in most cases (e.g., benign disease and nonurgent indication) oncologic surgery is still performed in dedicated hospitals.

Whenever possible surgical procedures should be delayed. Surgery plays a role in reducing the immune response and might increase the risk of developing COVID-19 in patients harboring asymptomatic SARS-CoV-2 infection.

Open surgery and in particular upper abdominal extensive surgical procedures increase the risk of pulmonary complications [3]. Moreover, the open approach should be avoided to reduce the length of hospital stay and possible postoperative morbidity, thus reducing in-hospital spread of COVID-19.

Although minimally invasive surgery improves short term outcomes in patients and it is associated with a faster recovery in comparison with the traditional approach, we have concerns related to the adoption of minimally invasive surgery in patients potentially infected by SARS-CoV-2. Potentially infective viral component has been identified in surgical smoke and this could potentially transmit disease [4–6]. To date, no clear evidence has demonstrated that the virus might infect the operating room (OR) staff during electrosurgery. Although the possibility of disease transmission through surgical smoke exists in humans, actual documented cases of pathogen transmission are rare especially in RNA viruses such as COVID-19 [1,5,6]. However, owing to the possible risk of SARS-CoV-2 infection, protection of healthcare providers is mandatory. During open surgery caution is needed for possible infection through contact with human fluids (including blood) and inhalation of particles from pneumoperitoneum. The release of aerosol through the trocar valves might potentially expose the OR staff to SARS-CoV-2. Levels of pneumoperitoneum pressure and the power settings of electrosurgery should be as low as possible to reduce possible aerosol formation. The OR staff needs substantial protection during all procedures and in particular during minimally invasive surgery. Further studies are needed to confirm this hypothesis. Until now, filters have to be applied to reduce possible spread of the virus. Adequate

personal protective equipment is necessary for all staff working in the operative theater. Because it is important to contain the spread of COVID-19, especially among healthcare providers, other minimally invasive techniques would be preferred to conventional laparoscopic procedures. By this point of view, isobaric minimally invasive technique and robotic-assisted surgery might reduce the risk of infection in the OR staff. In addition, these procedures ensure a low impact on pulmonary functions, avoiding the need for steep Trendelenburg position and reducing intra-abdominal pressure. Evidence is needed to better understand the risk to OR staff and provide the best treatment for our patients even during the COVID-19 pandemic outbreak.

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Regarding “Predictors of Postoperative Urinary Retention in Outpatient Minimally Invasive Hysterectomy”



To the Editor:

It was a great pleasure to read the article by Behbehani et al [1]. The authors demonstrated that a longer operative time and increased perioperative narcotic use increased the risk of postoperative urinary retention.

However, there is a common associated factor that is often overlooked. After any pelvic surgery for gynecologic or gastrointestinal reasons, the patient has an apprehension that increasing the intra-abdominal pressure would enhance the pain in the operative region. Therefore, it is expected and common that after pelvic surgery, patients are quite reluctant to increase intra-abdominal pressure. This reluctance to increase intra-abdominal pressure (IRIP) is a