

tear-free, and then anchor it with a rubber band onto a bite block (Figure 1). The TEE probe is advanced beyond the bite block into the esophagus. The bite block is then positioned in the patient's mouth. Because the exposed (contaminated) portion of the TEE probe remains within the probe cover, direct contact with secretions and potential for inadvertent spread to the operating room environment is minimized. As elective TEE cases have resumed, we have continued to use an ultrasound probe cover (Figure 1) as a protective barrier on each TEE probe and for many examinations.

Although this method was developed independently at our institution, a similar method was proposed by Dr. Jain, an anesthesiologist from the Medical College of Georgia.⁵ We believe that this is a viable technique to both perform a high quality echocardiographic exam and to prevent exposure of the provider performing the TEE to oral secretions from the patient.

Conflicts of interest

The authors declare no conflicts of interest.

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COVID-19 pandemic mental health risks among anesthesiologists: it is not only burnout

Dear Editor,

During COVID-19 pandemic the anesthesiologists and critical care forces have been fighting against a hitherto completely unknown enemy. This “call to arms” to fight COVID-19 has affected the anesthesia workforce in different psychological aspects depending on the level of involvement in the COVID-19 emergency. Anesthesiologists who are in the most affected areas are facing an unprecedented emergency, even that they have been always highly motivated to help. However, this has a price.

Physical fatigue due to the heavy workload is considerable and could affect the person's own health and the care provided to the patients. The lack of staff and unfavorable conditions in which anesthesiologists are forced to work, and the quarantine could be threatening to the mental health.

In addition, the risk of burnout is concrete and tangible. In fact, even if the challenge is high, and stimulating from an intellectual point of view, the risk factors for burnout are all there.¹ Emotional exhaustion, depersonalization, and reduced personal accomplishment are situations experienced

during the pandemic that increased the risk to develop burnout.

First of all, the emotional exhaustion is due to the massive influx of patients into the wards, the high number of deaths, and the enormous difficulty of caring for infected patients.² Secondly, the depersonalization, due to the inevitable repetitiveness of standardized protocols, the use of individual protection devices that make people anonymous, and the reduction of moments of workplace debriefing. Finally, the reduced personal accomplishment is due to the forced transfer of the department, the provision, albeit temporary, of expertise acquired, to the reduction of the possibilities of practicing hobbies, and interests by the quarantine.

Burnout, however, is not the only mental risk for anesthesiologists, especially in the long term. There are grounds for this unique experience to result in post-traumatic stress disorder (PTSD), which can also occur six months after the end of the pandemic. The possible onset of PTSD is related to the tangible feeling of being in constant danger of life, amplified by the emphasis of the mass media on the pandemic. Indeed, the stressful elements in the workplace cannot find an external relief valve given the quarantine life and the constant talk about the topic of the moment, there is a lack of possibilities for distraction. In addition, some anesthesiologists are working many kilometers away from their family, concerned of the possibility of never seeing their



families again. Many others have chosen a self-quarantine to safeguard their relatives and avoid the risk of becoming infectors. This situation risks configuring a family mobbing, in which anesthesiologists feel alone to face a high-stress and very dangerous working situation, with the addition of the sense of guilt of family neglecting, and becoming potential infectors.

The COVID-19 pandemic represents an event for which an anesthesiologist prepares a lifetime, in the same way as Commander Sullenberger in the Hudson Miracle. Anesthesiologists directly involved in fighting the infection, like the Commander Sullenberger, exposed to risks of PTSD and criticism for their work are at higher risk of developing mental disorders even months after the emergency. On the other hand, the situation for the anesthesiologists who are not at the frontline in the most affected areas may not be easier, either. For these anesthesiologists, COVID-19 could be a factor as frustrating as for the rest of the population. Anesthesiologists who are not on the frontlines feel privileged because they are not exposed to the same risks and the same emotional pain, and they are overwhelmed with guilt. In fact, anesthesiologists are trained with high sense of duty and very high standards: they work in an environment where errors are not acceptable and in a culture of dedication and self-sacrifice disposition that create a concerning mix.

Scientific societies are also rescheduling annual meetings and congress programs to give ample space to pandemic, with the danger to overlap the problem and create two classes of anesthesiologists: involved and not involved. This risk can ingenerate a work-social stigma like veterans' stigma.

Anesthesiologists at high and low risk areas with COVID-19 infections shared one additional mental risk: the Stockholm Syndrome. The pandemic has overturned the normal pre-existing relationship life: both in the emotional and working environment. This has provoked a reduction of the elective activities and a homogeneity in the pathologies present in the intensive care units. The return to "normality" means, for those who have been directly involved in the pandemic, to upset the organization of work again. If on one hand this means reducing the risks to physical health, reducing the workload, and releasing tension, on the other hand, changes can trigger an anxiety response. It is possible to believe that anesthesiologists involved in the COVID-19 emergency, hostages of the virus, will get used to this emergency situation in which emotions are strong and teamwork tends to smooth out personal divergences. However, anesthesiologists who have not been directly involved in the pandemic are also hostages of the virus, not at work but at home. The pandemic, in fact, by reducing the normal elective surgical activity, has reduced the working hours of many professionals, forcing them to stay at home. This new adaptation to a domestic life previously irreconcilable with intense work can trigger fear and anxiety for the return to a full-scale working activity.

Many papers nowadays are rightly focusing on the burnout and PTSD of health workers, making a parallel with what happened with Severe Acute Respiratory Syndrome (SARS).³ Although COVID-19 has instead hit the entire world, with

repercussions on every aspect of our working and relationship life. The element of novelty was the global lockdown in which each individual was somehow touched by the emergency. By focusing only on macroscopic psychological problems there is a risk of underestimating the sequelae that can emerge and invalidate the restarting of the health activity or the response to an upsurge of the infection.

In the short term, besides burnout and PTSD, it is also necessary to test for anxiety, depression, and guilt of health-care professionals to obtain a starting baseline. In this way we can have a picture of the current situation and monitor the trends. In the medium to long term, psychological support tools must be offered to the anesthesiologists involved in the most affected areas, for those who have continued to ensure their work with professionalism and diligence.⁴ Further research is necessary to identify which programs will best suit the needs of anesthesiologists and to measure their effects on patient care and health care system quality.

It is possible that cognitive behavioral therapy (CBT), which is a short and simple approach to problem solving, is the more suitable item for anesthesiologists who are affected. This therapy aimed to help making decisions and to solve problems without finery. Additionally, CBT is validated for PTSD, guilt, shame and anxiety treatment, with short therapies that can be compatible with a work life.⁵








These measures should not remain exceptional but should lay the foundations for a support protocol by National Healthcare systems. In this way, the experience of the COVID-19 pandemic will be able to bear good results of resilience.

Conflict of interest

The authors declare no conflicts of interest.

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