The Upcoming Surgical Pandemic

Venkat R Machiraju*
Department of Surgery, University of Pittsburgh Medical Center, USA

Letter to the Editor

The sudden onset of COVID-19 infections has drastically changed global health care. Hospitals, doctors, nurses, and trainees are trying to adapt to the new demands of providing care to critically ill patients. Whether they succumbed to the illness or recovered from it, treating those patients assuredly consumed significant amount of hospital resources. Public reports have highlighted the severe shortage of ventilators, surgical masks, and protective shields. Catecholamines, corticosteroids, vasopressor agents, and antibiotics used to prevent secondary infections probably were used as well. Enteral and parenteral nutritional supplements and several other medical supplies also must have been depleted. In short, the COVID-19 is imposing a severe strain on the healthcare system and is severely depleting number of hospital resources. While we rightfully remain fixed on the COVID-19 crisis in front of us, we may be missing a looming crisis in the background that will follow soon. On a daily basis, every major medical center performs nearly hundreds of the elective surgical cases--both in the main operating rooms as well as in their outpatient surgicare centers. But, in the wake of this pandemic, all elective procedures have been postponed. Neither these patients nor their surgical needs have abated during this pandemic. Once the restrictions are released, these patients will crowd the hospitals and various private clinics in overwhelming numbers and will place tremendous burden on the physical capacity and the supply chain. Currently, the entire hospitals budget according to their average volume of cases projected for the year on a monthly basis. Once the volume of cases multiplies several times in excess of their capacity, the surgeons and the hospitals will find themselves in a quandary: How many cases can they actually do in a day? How should they prioritize one patient over the other? Adding to those issues, of course, is the ever-present concern of liability when patients that are pushed back from timely surgery develop major complications or die from their illness. In addition newly diagnosed cases and trauma cases from various motor vehicle accidents and other injuries will be adding to the list as normalcy of life begins anew. Hospitals and clinics have to figure out how to squeeze all of the pent-up demand for the procedures that have been kept at bay in the wake of the pandemic. Doctors naturally might push the envelope by adding a case or two more beyond their normal workload. For example, coronary artery bypass surgeries take on an average of 3 h to 4 h irrespective of whether the surgeon has one case or four cases to do on a given day. Several major surgical procedures like joint replacements, endoscopic and robotic surgical procedures which take several hours to perform need to be squeezed into that surgical schedule. Similarly, outpatient surgical cases, even the simpler ones, take thirty minutes to an hour depending upon the turnover time and the time to perform the actual procedures. Of course, starting July 1st, new trainees with little expertise will start to care for sick patients and may miss some of the early clinical signs that the patient presents before developing cardiovascular collapse. The overburdened senior physicians have less time to supervise the newer trainees. Finally, surgeons are notorious in general to impose stresses on the system by operating beyond the tolerance of the other surgical staff that works in the operating rooms. Unless there is way of gradually increasing the number of surgical cases performed, we will create a surgical crisis of increased morbidity and surgical mortality—even in some of the simpler surgical cases where problems normally would not occur. And if this situation replicates itself all over the country, we will see surgical pandemic. This letter is a caution to the physicians as well as to the medical institutions to oversee and prevent unnecessary complications than a given procedure warrants.