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Cardiac Surgery during the COVID-19 Pandemic

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Abstract

There is a dearth of information regarding surgical services and patient outcomes during a pandemic because the major focus is kept on the pandemic itself and critical care. The majority of the small studies focusing on the outcomes of Covid-19 positive patients after various surgical procedures, such as thoracic and orthopaedic surgery, make up the currently available Covid-19 evidence. According to these preliminary investigations, surgery increases the chance of death in people who have Covid-19 and the disease's progression in those who are only incubating it. More recently, the COVIDSurg partnership has reported on 1128 surgical patients with a Covid-19 diagnosis (pre- or post-surgery) across 235 hospitals in 24 countries with a variety of therapeutic indications.

Keywords: Transplant surgery • Liver resection surgery • COVID surg

Introduction

The coronavirus disease pandemic has exacerbated the requirement for strict safety measures to be put in place in the medical care of surgical patients, particularly in the case of patients undergoing cardiac surgery, who are more at risk of -associated morbidity and mortality. These precautions not only call for reducing patients' exposure to but also for carefully weighing the dangers of delaying non-emergent surgical operations against the need for fast, appropriate care. In this article, we give a summary of the most recent research on preoperative techniques used in cardiac surgery patients, including risk stratification, telemedicine, logistical issues during inpatient care, adequate screening capacity and the choice of when to operate safely on patients. The coronavirus disease pandemic of has had an impact on both public and private life. Although the first pandemic wave was a "shock" to healthcare systems around the world, it nevertheless accelerated the adoption of stringent safety regulations for the treatment of surgical patients. These recommendations have been essential in assuring the best medical care amid spikes in the number of patients, in weighing the risks of delaying nonemergent surgical operations and in reducing possible exposure. This includes grouping the patients in phases according to how urgent their medical conditions are.

Discussion

With increased mortality ranging from 7.6% to 41.8%, patients with underlying cardiovascular disease are more likely to experience morbidity and prolonged hospital admissions. In hospitalised patients, cardiovascular illnesses, particularly arterial hypertension and comorbidities such diabetes, obesity, chronic pulmonary disease and indications of immunosuppression are most frequently linked to a worse prognosis. Myocardial damage is a common finding in instances and is linked to a higher risk of mortality or arrhythmia. Although the severe acute respiratory syndrome coronavirus 2 has been linked to myocarditis, stress cardiomyopathy and type I myocardial infarction, sepsis and respiratory failure with hypoxia continue to be the most common non-cardiac causes of myocardial injury and type II myocardial infarction.

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Surgery on patients with a SARS-CoV-2 infection that is active has been linked to a 20% increase in overall mortality, on average. There is growing evidence that people with COVID-19 have substantially compromised immune functions. Despite the lack of information on the case fatality rate in COVID-19 patients undergoing cardiac surgery, the existing data indicate higher mortality, with rates between 16% and 44%. Medical complexity and cardiovascular risk profiles are rising among patients after cardiac surgery. The higher risks of active or prior COVID-19 are not taken into account by current risk scores, despite the fact that they have a strong predictive value for perioperative mortality risk in cardiac surgery. All efforts should be directed at keeping the health care systems from filling up during the pandemic's peak surges. Aiming to strike a balance between ensuring medical care for an increasing number of COVID-19 patients and for those patients in need of crucial cardiac surgical services, expert societies and regional authorities have developed guidance documents and strategies to reduce the caseload of cardiac surgeries. This entails delaying non-emergency cardiac procedures, designing safe treatment delays and coming up with methods to reduce the danger of COVID-19 exposure for both patients and medical staff.Differentiating between situations where the underlying cardiovascular ailment may permit a treatment delay seems essential. To aid in logistical preparation, the delay may be divided into several urgency groups, such as a delay of >4 weeks, 3 months and >3 months. The wait should be as long as it is deemed safe for the specific patient. Each pathology's prognosis is very important. For instance, the PARTNER 1 study demonstrated that patients with severe symptomatic aortic stenosis have a dismal overall survival without therapy, with mortality of 50.7% at one year. Additionally, the first six months of waiting for surgical aortic valve replacement are when mortality is most likely to occur (3.7% at a 30-day treatment delay and 11.6% with a six-month treatment delay). Global health care systems were significantly impacted by the emergence of severe acute respiratory syndrome coronavirus 2 in December 2019, which was likely caused by the city of Wuhan in the Chinese province of Hubei. The disease was later declared a pandemic by the World Health Organization as coronavirus disease 2019 (COVID-19) in March 2020. Each nation's response to the disease was unique, but generally speaking, it involved strengthening and giving priority to health care services as well as implementing social lockdown in an effort to contain the infection and reduce the danger of transmission. On March 23, 2020, the government of the United Kingdom imposed a lockdown and all medical services were directed toward combating the effects of COVID-19 [1-5].

Conclusion

Protect the NHS (National Health Service) and save lives," reads the campaign's tagline. Despite being a crucial step in the fight against this extremely contagious illness, it placed a heavy burden on the NHS, a system of free healthcare. In order to prepare for the potential influx of COVID-19 patients and the need for ventilatory support, the NHS underwent a significant

transformation that required resources to be diverted to frontline health care services like ambulance services, emergency departments and the allocation of intensive care beds (Figure 3). In order to boost capacity, new facilities, known as Nightingale Hospitals, were built all over the country. Private hospital space was also purchased. Industries were tasked with creating ventilators, while academics were tasked with developing treatments and vaccines. All elective care was effectively terminated.

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Conflict of Interest

There are no conflicts of interest by author.

References

1. Akalestou, Elina, Alexander D. Miras and Guy A. Rutteret. "Mechanisms of weight loss after obesity surgery." *Endocr. Rev* 43 (2022): 19-34.
2. Mieog, J. Sven D., Friso B. Achterberg, Aimen Zlitni and Merlijn Hutteman et al. "Fundamentals and developments in fluorescence-guided cancer surger." *Nat Rev Clin Oncol* 19, (2022): 9-22.
3. Wang, Wenlin. "Basic theories and concepts of chest wall surgery." *Int J Surg Sci* 6, (2022): 12-14.
4. Shoji, Kotaro, Roman Cieslak, Ewelina Smoktunowicz and Anna Rogala, et al. "Associations between job burnout and self-efficacy: A meta-analysis." *Anxiety Stress Coping* 29 (2016): 367-386.
5. Durlak, Joseph A., Roger P. Weissberg, Allison B. Dymnicki and Rebecca D. Taylor, et al. "The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions." *Child Dev* 82 (2011): 405-432.

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