

Cancer Surgery During Covid19 Pandemic: Problems And Prospects

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Abstract

Cancer management poses a unique challenge in terms of a long duration of treatment, a need for regular monitoring, acute and delayed morbidities associated with aggressive therapies, etc., resulting in an enhanced risk of contracting infections. The major problem faced by surgical oncologists is to whether postpone the surgery or to go ahead. Proposed organ specific guiding principles(4) by multiple institutions whether to defer or postpone or continue with the surgery for various cancer sites are followed. Along with routine pre-procedure work-up, the COVID-19 testing should be considered. This has the potential to reduce highriskexposure to health caregivers. Some of the retrospective series showed peri-operative mortality and morbidity in COVID-19 positive patients, who underwent major elective and emergency surgeries(7). **Conclusion:**It is our duty to provide proper resources and information to patients to help in decision-making at this time of uncertainty. The long-term financial and emotional downstream impacts will be future challenges.

Key Words: Cancer surgery, COVID 19, Cancer surgery in pandemic

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I. Introduction:

The world is currently fighting against the outbreak of a novel beta corona virus known as severe acute respiratory syndrome corona virus – 2 (SARSCoV-2)(1).As of 23rd August 2020 globally there are 22,812,419 confirmed cases of covid19 including 795,132 deaths(2).India is currently facing a dire situation in curbing the pandemic. During this pandemic, cancer patients are highly susceptible, as they are severely immunocompromised due to both their cancer and its treatment. Many of them are aged and visit medical facilities regularly, which further increases their chance of contact with infected people(3). Along with this most of the hospitals are made covid hospitals with most outpatient services closed to contain the disease transmission, which made the life of cancer patient more difficult. Along with cancer patients, oncologists and management of oncology hospitals doesn't have much experience to handle the spread of novel beta corona virus in their regular practice.

Cancer management poses a unique challenge in terms of a long duration of treatment, a need for regular monitoring, acute and delayed morbidities associated with aggressive therapies, etc., resulting in an enhanced risk of contracting infections. Nevertheless, cancer treatment has been declared as an essential service that cannot be compromised during the pandemic.

Problems in cancer surgery:

The challenges surgical community facing include screening for COVID status, protection of Health care providers, judicious use of limited personal protective equipment (PPE) and other hospital resources. The challenges faced by surgeons treating cancer are unique, because most of the cancer surgeries are elective but cannot be delayed beyond a certain point of time due to biology of the disease and adverse impact on survival if surgery is delayed.

The major problem faced by surgical oncologists is to whether postpone the surgery or to go ahead. As a referral centre we see most patients from distant places and concerns for exposing non-local patients and ourselves to covid19 grew as the virus spread. In addition, expected staff shortage pose significant staffing limitations. Proposed organ specific guiding principles(4) by multiple institutions whether to defer or postpone or continue with the surgery for various cancer sites are followed and explained to the patient and their family members.

Liang et al. stated that, patients who have undergone cancer surgery or chemotherapy within the previous 1 month have a higher risk of clinically severe disease as compared to those who did not have surgery or chemotherapy (3/4 [75%] patients vs. 6/14 [43%] patients, odds ratio [OR] 5.34, 95% CI 1.80–16.18; $p = 0.0026$). Liang suggested the postponement of surgery for stable cancer patients in endemic areas(5).

Covid19 testing and triage:

Along with routine pre-procedure work-up, the COVID-19 testing should be considered. This has the potential to reduce high-risk exposure to health caregivers. However, the accuracy of testing modality used should be taken into account. However, in areas with a high incidence of COVID-19, tests may be repeated after 5 days considering a negative test is 'valid' for 3 to 5 days. Figure 1 shows schema and possible workflow for preoperative patients and COVID testing. Patients who test negative for COVID-19 should be treated with universal precautions, to reduce potential high-risk exposures to patients and the staff. For those who have suspicious symptoms, or for those with equivocal results on initial testing, deferring surgery, isolation, and prompt (re) testing depending on institutional policies to confirm COVID-19 status may be a reasonable option before the further course of action is decided. For patients who test positive, symptomatic or asymptomatic, the management strategy is more complicated and involves critical decisions for treatment of COVID-19. Though evidence-based recommendations for the management of COVID-19 are available in the current international guidelines(1), questions regarding the management of cancer in patients who test positive before or during their cancer treatment remain mostly unanswered(6)(7). Some of the retrospective series showed increased

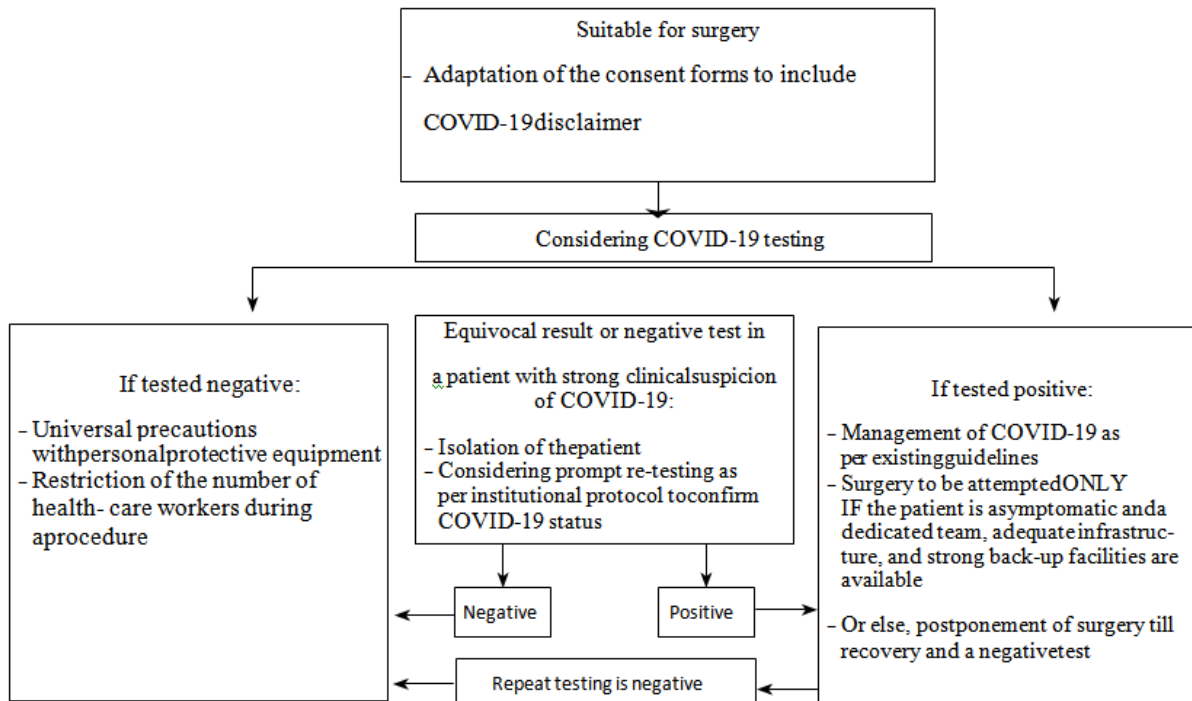


Fig. 1. Schema and possible workflow for cancer patients and COVID-19 testing for surgery

peri-operative mortality and morbidity in COVID-19 positive patients, who underwent major elective and emergency surgeries(7). However, the risks of continuing surgery and strategies for treating asymptomatic positive patients need to be resource-customized. Employing a committed team, with a full gear of protective equipment, dedicated operating room and ICU, disinfection protocols for equipment, etc., may not be a feasible option for most centers.

Maintaining a fine balance between the potential risks associated with such attempts and the risks related to undue delay of surgery is imperative for achieving optimal outcomes. In principle, cancer care units should be well-prepared to confront such situations, with appropriately equipped ICU facilities and advanced precautions and measures.

II. Conclusion:

It is our duty to provide proper resources and information to patients to help in decision-making at this time of uncertainty. The long-term financial and emotional downstream impacts will be future challenges. There are still many unanswered questions, however, we still have the obligation to rise to the challenge of providing the best possible evidence-based management for all cancer patients during this time of crisis and uncertainty.

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