The need for prioritizing cancer surgeries amidst the COVID-19 pandemic

Arvind Krishnamurthy & Kodaganur S. Gopinath

The COVID-19 pandemic has posed and continues to pose unprecedented challenges for patients, oncologists as well as the health care systems across the world [1]. The Surgical Oncology community seems to have more questions than answers, especially when it comes to issues concerning prioritization of cancer care, amidst this unrelenting pandemic. Patients with cancer are more vulnerable to infections in general because of their underlying disease as well as their immunosuppressed status; consequently they represent a high-risk group in the COVID-19 pandemic [2]. Surgical oncologists are unsure of the ultimate benefit of their interventions i.e. cancer surgeries, especially when it has to be weighed against the risk of introducing an inadvertent COVID-19 infection in the health care system.

There are a few guidelines developed by cancer centres/surgical oncology societies to aid the treating oncologist in making complex treatment decisions [3, 4]. However, considering that the COVID-19 pandemic is a new respiratory infection, the available evidences are limited and hence most of the guidelines give only very broad rather than any specific recommendations. The treating oncologists must keep reminding themselves that these guidelines must be interpreted only after taking into consideration ones clinical judgement, institutional protocols, the available resources and more importantly the prevalence of COVID-19 infections in their region. The severity of the COVID-19 pandemic may vary over time and hence all the available guidelines are subject to periodic changes with the changing trajectory of pandemic and with the accumulation of newer evidences. A multidisciplinary discussion for dealing with such complex cancer scenarios is hence strongly encouraged.

The COVID-19 pandemic has once again brought to the forefront the myriad issues concerning the safety of the cancer patients as well as the treating health care workers. The potential risks, especially for the cancer patients seems to emanate from the limited evidences that suggest that the signs and symptoms of COVID-19 tend to be more severe in cancer patients than in patients without cancer. Further, radical treatments for cancer can predispose the patients to more serious and at times fatal outcomes of the COVID-19 infection. These findings were based on a small, but much criticized study by Liang et al. [4] of 18 cancer patients out of a cohort of 1590 patients, interestingly 13 (72%) of eighteen cancer patients had a prior radical surgical resection. The authors concluded that there was an increased risk of intensive care admissions and mortality among the cancer patients with COVID-19 as compared to the COVID-19 patients without cancer [4]. Further, there are clear evidences to suggest that older patients and also patients with increased comorbidities tend to have poorer outcomes with COVID 19 infection [5]; these issues assume greater significance while managing an elderly cancer patient with comorbidities. The lower case fatality rate of COVID-19 logically seems to suggest that the benefits of treating selected cancer patients (who are otherwise fit and healthy) may far outweigh the risks of dying from COVID-19 [6]. It is vitally important for the treating oncologists to clearly explain the above evidences to cancer patients during the process of informed consenting. Further, the risk of in-hospital transmission of COVID-19 infection can be mitigated by effective implementation of the infection control policies, especially with regard to screening and triaging patients and staff for symptoms of Severe Acute Respiratory Illness (SARI) as well as the disciplined use and disposal of the Personal protective equipment (PPE) and the other biomedical waste.
Treating surgical oncologists as well as treating oncology institutions must ideally develop their own multidisciplinary protocols for prioritizing cancer treatments after taking into account all the ground realities amidst the pandemic [6, 7]. All patients scheduled for cancer surgeries should be managed with all the due precautions (Universal and Respiratory) in dedicated health care settings and by trained and well informed (by ensuring periodic training of the protocols) health care workers.

Certain broad surgical considerations, commonly seen across among the various guidelines include [6, 7]:

1. Any life threatening surgical emergencies i.e. acute stridor, obstruction, bleeding, perforation, sepsis among others warrants immediate surgical intervention.

2. Among the non-emergent cases, priority should be given for cancer surgeries wherein there are higher chances of cure (primary, neoadjuvant or recurrent settings) and especially when there are no effective non-surgical treatment options or when the upfront non-surgical treatments were not effective (e.g. not responding to the neoadjuvant treatments)

3. Postponing certain cancer surgeries may be associated with increased risk of progression; however the impact of surgical waiting times for different cancers may vary. Certain authors have suggested that patient scheduled for cancer surgeries can be triaged into three categories, based on the “risk for progression” i.e. high risk (ideally no delay in surgery), intermediate risk (delay of surgery up to 3 months is acceptable) or low risk (>3 months surgical delay is acceptable) [7] Certain others authors have suggested a safe postponement period of 3–4 weeks in about 48% of the primary cancers and an additional 2–4 week safe postponement period for nearly 76% of the cancers following the completion of neoadjuvant treatments. (Data accepted for publication by Turuga et al.)

4. It is extremely important to use ones discretion to ensure a proper case selection so as to rationalize the use of the available infrastructure, (hospital beds and ventilators) manpower, PPE, blood and blood products among others.

5. It is preferable to advise cancer survivors to reschedule their follow up visits, more so if they are asymptomatic and otherwise healthy or to arrange for telephonic or online consults if deemed feasible [8].

6. Finally it is vitally important that adequate measures are taken to address the issues concerning the psychosocial and emotional well-being of all cancer patients as well as the health care workers throughout the course of the pandemic.

Finally the treating oncologists must be aware and must fully abide by the protocols as laid down by the Government, knowing fully well that in case of a conflict, the Governmental protocols supersede all the other guidelines. The decision for starting or delaying a cancer surgery should ideally be made by a shared decision making process and should be individualized for each patient. The oncology community will have to wait with bated breaths the true impact of the COVID-19 pandemic on the long term outcomes of cancer patients i.e. especially the survival outcomes of cancer patients whose surgeries and/or other therapies were either compromised, delayed or cancelled, this would be an important area for deeper introspection and future research.

References

1. The Lancet Oncology (2020) COVID-19: global consequences for oncology. Lancet Oncol 21:467
2. Desai A, Sachdeva S, Parekh T, Desai R (2020) COVID-19 and cancer: lessons from a pooled meta-analysis. JCO Glob Oncol 6: 557–559
3. Bartlett DL, Howe JR, Chang G, Crago A, Hogg M, Karakousis G, Levine E, Maker A, Mamounas E, McGuire K, Merchant N, Shibata D, Sohn V, Solorzano C, Turaga K, White R, Yang A, Yoon S (2020 Apr) Society of Surgical Oncology. Management of Cancer Surgery Cases during the COVID-19 pandemic: considerations. Ann Surg Oncol 8. https://doi.org/10.1245/s10434-020-08461-2
4. Liang W, Guan W, Chen R, Wang W, Li J, Xu K, Li C, Ai Q, Lu W, Liang H, Li S, He J (2020) Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. Lancet Oncol 21:335–337
5. Wang D, Hu B, Hu C (2020) Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan. China JAMA. https://doi.org/10.1001/jama.2020.1585. published online Feb 7
6. Hanna TP, Evans GA, Booth CM (2020 Apr 2) Cancer, COVID-19 and the precautionary principle: prioritizing treatment during a global pandemic. Nat Rev Clin Oncol. https://doi.org/10.1038/s41571-020-0362-6
7. Kutikov A, Weinberg DS, Edelman MJ, Horwitz EM, Uzzo RG, Fisher RI (2020 Mar 27) A war on two fronts: cancer Care in the Time of COVID-19. Ann Intern Med. https://doi.org/10.7326/M20-1133 [Epub ahead of print]
8. Hollander JE, Carr BG (2020 Mar 11) Virtually perfect? Telemedicine for Covid-19. N Engl J Med. https://doi.org/10.1056/NEJMp2003539

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.