Coronavirus Disease 2019 Pandemic Potential Collateral Damage on Patients With Operable Pancreatic Cancer

To the Editor:

he emerging epidemiological data underscore the global impact of the coronavirus disease 2019 (COVID-19) pandemic. Since the first case was reported in December 2019, in Wuhan, China, the subsequent 4 months have seen the virus spread to every continent. In tandem with increasing infection rates, the mortality associated with the infection continues to rise, with over 90,000 deaths reported worldwide with most authorities recognizing that this does not reflect the actual level of infection or mortality. 1 Research towards a vaccine and effective antiviral therapy is underway with much of the effort in the Western world being targeted towards manufacture of mechanical ventilators to ensure timely treatment of COVID-19 patients.²

The pandemic has, in addition, at least had significant short- to medium-term effects upon social activities, education, and the economy, although positive environmental effects have been noted.3 The initial and on-going media focus has predominantly and rightly focused upon tracking the spread of the virus, its associated health indices, and the ensuing economic downturn.⁴

With the focus continuing to be centered upon COVID-19 as a health emergency, sparse attention is currently being paid to the inevitable effects upon management of other diseases during this time. The rapidity of viral spread has forced a speedy redistribution of resources in almost all health care systems around the world with priority being centered on ensuring intensive care unit (ICU) capacity, which in some instances has meant that operating rooms are being used as additional ICU beds meaning that anesthetic staff are being deployed to care for these patients.

As a result, surgical services have reduced their workload with most elective surgery being postponed. The 4 surgical Royal Colleges of the United Kingdom and Ireland have released a joint consensus statement providing guidance for emergency general surgery, but the same has not been published for cancer surgery.⁵ A negative effect can be anticipated for patients with almost all cancers but particularly pancreatic cancer because most of these patients will require preoperative anesthetic input and require ICU stay postoperatively. Several studies have demonstrated the adverse impact of delay to surgery in patients with pancreatic cancer. Sanjeevi et al⁷ demonstrated that a waiting time from diagnostic imaging to surgery of more than 32 days doubles the rate of irresectability in patients with pancreatic ductal adenocarcinoma. Moreover, emerging data from the "fast track" pancreatic surgery pathway suggests that this rapid assessment process increases rates of curative resection.8

As a result of the COVID-19 pandemic, Kutikov et al9 have proposed guidelines for triaging patients with various tumors, including pancreatic cancers. The authors suggested that in cancers where treatment delay may increase, the risk of disease progression provision should be made to offer immediate surgical intervention in such patients who are younger than 70 years. 9 Although pancreatic cancer clearly falls into this remit on current forecasts of ICU bed occupancy, there will be an inevitable delay in surgery for patients with operable pancreatic cancer.

Patients with resectable pancreatic cancers awaiting surgery for longer than necessary may be offered chemotherapy as a method of disease control and bridge to surgery despite an evidence base. Extrapolating data for this approach in resectable disease from those patients receiving neoadjuvant chemotherapy for borderline/ locally advanced disease should be avoided because they represent different patient and disease cohorts.10

It can be safely assumed that the incidence of pancreatic cancer will not alter during the COVID-19 pandemic; thus, these patients coupled with those receiving bridging treatment will mean an increased patient cohort awaiting pancreatic resection post COVID-19. Surgical services will need to adapt quickly to this situation to accommodate the number of pancreatic resections needed to be performed.

Currently reported mortality figures are focused upon COVID-19 associated mortality. However, the pandemic will indirectly increase patient mortality from delays in cancer treatment, which may not be immediately apparent. With the COVID-19 pandemic continuing to surge, the effect on cancer patient outcomes with these significant delays may never be fully appreciated.

ACKNOWLEDGMENT

The authors declare no conflicts of interest.

Stephanos Pericleous, MBBS, MDRes, **FRCS**

Department of HPB Surgery and Liver Transplantation The Royal Free London NHS Trust Hampstead, London United Kingdom

Ricky H. Bhogal, PhD, FRCS

Department of HPB Surgery Academic Department of Surgery Royal Marsden Hospital Chelsea London United Kingdom s.pericleous@nhs.net

REFERENCES

- 1. Lau H, Khosrawipour V, Kocbach P, et al. Internationally lost COVID-19 cases. J Microbiol Immunol Infect. 2020. doi:10.1016/ j.jmii.2020.03.013. Epub ahead of print.
- 2. Cao B, Wang Y, Wen D, et al. A trial of lopinavir-ritonavir in adults hospitalized with severe Covid-19. N Engl J Med. 2020;382: 1787-1799.
- 3. The epidemic provides a chance to do good by the climate. The Economist. Available at: https://www.economist.com/science-andtechnology/2020/03/26/the-epidemic-providesa-chance-to-do-good-by-the-climate. Accessed April 9, 2020.
- 4. Novel coronavirus (2019-nCoV) situation reports. Available at: https://www.who.int/ emergencies/diseases/novel-coronavirus-2019/ situation-reports. Accessed April 9, 2020.
- 5. Intercollegiate general surgery guidance on COVID-19 UPDATE. The Royal College of Surgeons of Edinburgh. Available at: https:// www.rcsed.ac.uk/news-public-affairs/news/ 2020/march/intercollegiate-general-surgeryguidance-on-covid-19-update. Accessed April 9, 2020.
- 6. Lukács G, Kovács Á, Csanádi M, et al. Benefits of timely care in pancreatic cancer: a systematic review to navigate through the contradictory evidence. Cancer Manag Res. 2019;11:9849-9861.
- 7. Sanjeevi S, Ivanics T, Lundell L, et al. Impact of delay between imaging and treatment in patients with potentially curable pancreatic cancer. Br J Surg. 2016;103:267-275.

- Roberts KJ, Prasad P, Steele Y, et al. A reduced time to surgery within a "fast track" pathway for periampullary malignancy is associated with an increased rate of pancreatoduodenectomy. HPB (Oxford). 2017;19:713–720.
- Kutikov A, Weinberg DS, Edelman MJ, et al. A war on two fronts: cancer care in the time of COVID-19. Ann Intern Med. 2020. doi:10.7326/M20-1133. Epub ahead of print.
- Bradley A, Van Der Meer R. Upfront surgery versus neoadjuvant therapy for resectable pancreatic cancer: systematic review and Bayesian network meta-analysis. Sci Rep. 2019; 9:4354.