Impact of the COVID-19 pandemic on cancer care

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Hong Kong Med J 2022;28:427–9
https://doi.org/10.12809/hkmj215136

Status of COVID-19 worldwide and in Hong Kong

As of November 2022, there have been >600 million confirmed cases of coronavirus disease 2019 (COVID-19) worldwide, including 6 million deaths, since the pandemic began in 2020.[1] In Hong Kong, the number of cases has reached >2 million, with >10 000 deaths. Since the initiation of the vaccination programme in 2021, >94% and >83% of the population have received the first and third doses, respectively.[2] In addition to its impacts on infected individuals, the COVID-19 pandemic has affected the general public and physicians.[3-5]

Relationship between the COVID-19 pandemic and cancer

Patients with cancer are more aware of the impact of COVID-19 because of their increased risk of infection. This risk of infection arises from factors such as the presence of an immunocompromised status related to disease or treatment, the nature of cancer as a major co-morbidity that enhances the risks of COVID-19–related morbidity and mortality, and the need for frequent visits to medical centres to receive anticancer treatment and cancer-related care.[6,7] A study conducted in China showed that patients with both COVID-19 and cancer had 3.5-fold greater odds of requiring mechanical ventilation, intensive care unit admission, or death, compared with healthy individuals.[8] Patients with cancer also had a higher risk of COVID-19 infection and experienced worse outcomes, compared with patients who did not have cancer.[9,10] Additionally, one study showed that the onset of COVID-19 could lead to higher mortality (24%) among patients with cancer than among patients without cancer (3%).[10,11]

Impact of COVID-19 on cancer screening

The COVID-19 pandemic has led to reductions in cancer screening services in relation to the suspension of non-urgent medical services, rescheduling to focus on COVID-19–related services, and reduced patient motivation to seek care.[12-14] Affected services include colorectal, cervical, lung, and prostate cancer screenings.

For example, colorectal cancer screening capacity in the United States has decreased by 86%, and up to 1500 colorectal cancer cases have been missed or delayed in Australia during the COVID-19 pandemic thus far.[12] The effectiveness of colorectal cancer screening services is compromised because there is an increased risk of COVID-19 transmission associated with endoscopy and the exposure of vulnerable people to the hospital environment. These impacts have been reported in multiple countries worldwide, including the United States, United Kingdom, Ireland, Australia, and Italy.[12] Additionally, one study showed that a large proportion of women in Hong Kong have never undergone cervical cancer screening; this lack of screening has been exacerbated during the COVID-19 pandemic because of restricted access to medical centres.[13] Social distancing and concerns about potential exposure have deterred women from seeking clinical care, thereby reducing in-person screening.[10] Another study revealed the potential for missed cancer diagnoses (prostate, 19.7%; colorectal, 10%; and lung, 3%) because of the COVID-19 pandemic in Hong Kong.[14]

Impact of COVID-19 on cancer treatment and patient life

The COVID-19 pandemic has had diverse effects on patients with cancer; the greatest impacts have involved effects on patients' lives and access to cancer treatment modalities. Researchers in Hong Kong recently published the results of a multidisciplinary cross-sectional survey that examined the real-world impact of the pandemic on patients with cancer in May 2020.[15] The survey found that patients accepted increased physical distance from medical staff during consultations; patients were able to refill

their medications without oncologist consultations. Although some patients receiving chemotherapy or radiotherapy chose not to modify their treatment plans, many patients were willing to balance a change in treatment efficacy or side-effect profile with the ability to undergo out-patient treatment. Among patients with cancer, social distancing measures during the pandemic have changed attitudes and experiences related to medical consultation and cancer treatment; these changes have tended to continue as the pandemic severity has declined.[15-17]

Implications for cancer care during the pandemic

Research has shown that although cancer services continue to function with adaptive measures and patient acceptance, many patients are hesitant to visit hospitals. This hesitance is related to inadequate information regarding COVID-19 among patients with cancer, particularly with respect to hospital safety measures focused on COVID-19.[16] Therefore, patients with cancer should receive timely information about COVID-19 from official sources, through various channels (eg, the internet and social media), regardless of their age and socio-economic status.

Research findings have also emphasised the real-world needs of patients with cancer in terms of individualised dietetic and occupational health assessments, early in-patient or out-patient interventions, and self-help materials for cancer care developed in the context of the pandemic. Such considerations should include telemedicine, which has become popular during the pandemic; because it sometimes cannot be accessed and understood by underprivileged individuals (eg, older adults and less educated patients), telemedicine should not fully replace conventional physiotherapy and rehabilitation.[17] The issue of telemedicine was also addressed in a study focused on new cancer diagnoses. Among patients who experienced difficulty understanding their cancer diagnosis (eg, cancer type, stage, and treatment options), the use of telemedicine may lead to increased anxiety and confusion. Thus, clinical visits are preferable for new patients.[18]

The decision to continue or discontinue treatment (chemotherapy or surgery) is a key consideration for patients with cancer who may have an increased risk of infection during the pandemic. The results of some studies suggest that adjuvant chemotherapy or surgery can be postponed for patients with cancer who exhibit stable disease, whereas the results of other studies suggest that those aspects of treatment should be continued to prevent COVID-19 transmission. The findings of one study indicated that adjuvant chemotherapy with curative intent should be maintained for early-stage cancer.[18] Robust precautionary measures should be implemented for chemotherapy infusion areas (eg, nucleic acid testing, quarantine, and isolation) to protect immunocompromised patients.[18] Nevertheless, that study did not include patients with cancer who received treatments in private clinics. Moreover, future studies should cover longer periods of time (ie, not limited to the first wave of the COVID-19 pandemic), considering that there were five waves of COVID-19 in Hong Kong before November 2022.[19] In addition to clinical outcomes, patient-reported outcomes should be explored among patients with cancer.[20] Additional studies are needed regarding the long-term impact of the COVID-19 pandemic on cancer care to determine how it may affect the cancer burden in Hong Kong during the post-pandemic era.

Author contributions

All authors contributed to the editorial, approved the final version for publication, and take responsibility for its accuracy and integrity.

Conflicts of interest

All authors have disclosed no conflicts of interest.

Acknowledgement

We thank Ms Yuet-yan Wong, Senior Research Assistant from the Jockey Club School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong, for her assistance in the literature search and review.

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