

VIEWPOINT

Active and Effective Measures for the Care of Patients With Cancer During the COVID-19 Spread in China

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Recently, an outbreak of the highly infectious novel coronavirus disease 2019 (COVID-19) has swept Wuhan, China, with 80 303 confirmed diagnosed cases in China as of March 3, 2020.¹ Considering its high risk of person-to-person transmission, hospitals, especially in China, are the typical congregating places that will bear the brunt of this infectious disease. To reduce or avoid cross infection of COVID-19, many hospitals have started taking actions to limit the number of outpatient visits and inpatient admissions. For example, only emergency surgeries can be guaranteed, while most others are postponed. Maintenance chemotherapy and/or immunotherapy treatments for patients with advanced cancer are often suspended. However, forced delays or interruptions of routine treatment might increase the risk of disease deterioration, especially for patients with cancer. In China, approximately 4.3 million cases of cancer are diagnosed each year.² During the epidemic of COVID-19, the treatment of patients with cancer, which is often considered as nonemergent, is inevitably affected across China, especially in Wuhan.

As a result of powerful prevention and control measures, the spread of COVID-19 has been gradually controlled. However, cases have been diagnosed in a number of countries outside of China, especially in South Korea and Iran, leading to a global outbreak. As of March 3, 2020, newly diagnosed cases and deaths owing to COVID-19 had occurred in nearly 70 countries or regions, including South Korea, Iran, Italy, Japan, Germany, Singapore, Spain, and the US, with a total of 11 953 confirmed cases.³ The insidious onset (which can manifest without any obvious clinical symptoms, such as fever, in the early phase) and long incubation period (up to 24 days⁴) indicate the strong transmissibility of COVID-19. The World Health Organization has declared COVID-19 to be a "public health emergency of international concern."⁵ Therefore, it may have a worldwide influence on the diagnosis and treatment of patients with cancer.

Patients with cancer are usually characterized by older ages, multiple complicated diseases, and lower immunity, meaning a higher probability of severe illness and increased mortality compared with the healthy population once infected with COVID-19.⁶ To alleviate the difficulties of patients with cancer in seeking medical aid and simultaneously avoid COVID-19-related nosocomial cross infection between patients and medical staff, several mandatory measures are being carried out in the National Cancer Center/Cancer Hospital, Chinese Academy of Sciences during this period.

First, multiple on-site temperature tests are performed at the entrances of the hospital, the outpatient clinic, and the wards. Also, the contact and travel histo-

ries regarding the epidemic area of all individuals are recorded.

Second, an appointment scheduling system is available for outpatients, which allows both online appointment scheduling and on-site registration. The appointment system substantially reduced the flow of people in the hospital. For admitted patients, essential personal protective measures are required (such as wearing a mask and bringing their own disinfectant). Furthermore, online consultation channels for patients with cancer are open daily, which could help to instruct patients on medication taking and cancer-related symptom management.

Third, for patients preparing to be admitted, symptoms that are potentially associated with COVID-19, such as fever and cough, are required to be routinely recorded. Mandatory routine blood tests and high-resolution computed tomography scans of the lungs are performed. COVID-19 virus nucleic acid tests will be carried out for patients with suspected pneumonia on computed tomography imaging.

Fourth, some anticancer drugs conventionally administered through infusion were changed to orally administered drugs if available, for example, etoposide and vinorelbine. For adjuvant chemotherapy or maintenance chemotherapy, the infusion intervals were appropriately prolonged depending on patients' conditions.

After the Chinese Spring Festival, the Cancer Hospital, Chinese Academy of Medical Sciences initiated the level-1 response (the highest emergency response measures) to COVID-19. From February 12, 2020, to March 2, 2020, the Department of Medical Oncology received a total of 2944 patients for clinic consultation and treatment in the wards, including 2795 outpatients and 149 inpatients. Under the strict screening strategy, 27 patients showed radiologic manifestations of inflammatory changes or multiple-site exudative pneumonia in the lungs, 8 of whom were suspected of having COVID-19 infection. Fortunately, negative results from nucleic acid testing ultimately excluded COVID-19 infection in all these patients. Importantly, 2 of these patients presented with recovered pneumonia after symptomatic treatment. Under the strict protective measures, not a single patient or staff member had been diagnosed with COVID-19 infection as of March 3, 2020.

Under the further attack of COVID-19 worldwide, more attention should be paid to patients with cancer as a special population. Both the effective prevention of cross infection of COVID-19 and the rational arrangement of anticancer treatment are extremely important. The measures we are taking may be of great value to help guide patients with cancer smoothly and safely through the epidemic.

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