



The COVID-19 Outbreak and Oncology Centers in Iran

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Dear Editor,

The COVID-19 outbreak has become a major health concern, affecting most countries around the world. It is recognized as the 3rd most important communicable disease, following severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) (1). However, the reactions of healthcare systems to the COVID-19 outbreak were ineffective and inadequate around the world, highlighting the shortcomings of these systems in terms of timely response to the need for an appropriate diagnostic and treatment approach. This pandemic resulted in more than 224,172 deaths and rapidly spread around the world within 6 months.

Considering the previous experiences with SARS and MERS diseases, the cause of immature responses to the COVID-19 pandemic, its rapid global spread, and high mortality remains controversial. Moreover, some high-risk groups of patients for COVID-19 suffer from malignancies and have a higher risk of intensive care unit (ICU) admission and death. Liang et al. conducted the first study in this area, assessing the importance of SARS-CoV-2 infection in patients with malignancies. They assessed 18 COVID-19 patients with malignancies (out of 1,590 patients with COVID-19) and showed that this subgroup of patients was at a higher risk of invasive ventilation, ICU admission, and death, regardless of the stage of disease and type of treatment. Also, prognosis was worse in patients with an active cancer, compared to cancer survivors (2).

In another study by Wang et al., a total of 138 patients with COVID-19 were assessed, including a large number of patients (n = 64) with a history of different comorbidities (10 cases of malignancy). They reported that ICU admission was significantly more common in COVID-19 patients with comorbidities, which might contribute to higher mortality rates (3). Also, the case fatality rate (CFR) was 5.6% in patients with cancer, which is almost three times higher than

the overall estimated CFR (2.3%) (4).

According to the mentioned results, COVID-19 patients with comorbidities, including cancer survivors and active cancer patients, are at a greater risk of ICU admission and mortality. Therefore, any delay in the appropriate management of these patients may increase the financial burden on the healthcare system and result in very poor outcomes. It is essential that all healthcare systems have a pre-designed action plan to encounter any outbreaks promptly.

Despite our previous experience, there is no study addressing the importance of special subgroups of patients (e.g., patients with malignancies) during SARS and MERS outbreaks. Filippi et al. conducted one of the first studies on the management of patients with malignancies during the COVID-19 outbreak. They proposed some general recommendations on how radiation treatment centers should deal with the outbreak of infectious diseases, with a focus on the optimal treatment of COVID-19, based on the type of malignancy to increase patient safety. This article was followed by another study by Simcock et al., proposing some suggestions in more detail (5, 6).

In this study, we aim to elaborate on the concerns and issues of oncology centers during outbreaks, with a focus on developing countries. Overall, cancer patients in developing countries with limited resources encounter more serious problems during outbreaks, because the healthcare systems do not prioritize them. In addition, the lack of appropriate guidelines in accordance with their condition intensifies this problem. Some other problems in these countries include the use of radiation treatment centers as COVID-19 referral centers; lack of available hospital beds, which were allocated to cancer chemotherapy and infusion; and deployment of the same nursing and hospital staff in cancer treatment centers and COVID-19 wards.

On the other hand, the patients' avoidance of timely

visits for oncology treatments, due to the fear of contracting COVID-19, can lead to irreparable damages. Timely delivery of radiotherapy is essential for patients and any interruptions in radiation therapy may lead to cancer recurrence. In this regard, we encountered some problems after the COVID outbreak. For instance, one of our patients with laryngeal squamous cell carcinoma (SCC), who was in the middle of definitive radiation therapy, avoided radiation therapy because of the fear of COVID-19 infection. It seems that responses to the COVID-19 outbreak were not timely in the oncology setting. Achard et al., Filippi et al., and Simcock et al. are among the first researchers to conduct studies on this pandemic after four months since the first reports; therefore, more rapid responses and preparations are required (5-7).

Footnotes

Authors' Contribution: Seyed Alireza Javadinia developed the original idea and the protocol, abstracted and analyzed data, wrote the manuscript, and is a guarantor. Davood Soroosh contributed to the development of the protocol, abstracted data, and prepared the manuscript.

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