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ORIGINAL ARTICLE

The effect of COVID-19 on oncology practice in Turkey

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Summary

Purpose: *The novel coronavirus (COVID-19) was defined in China, leading an outbreak, impacted the organization, and maintained cancer care. Although the alterations of cancer treatment maintenance were evaluated, the difference in physicians' side was not determined. In this survey study, we tried to assess the alteration of Turkish oncologists' daily practice.*

Methods: *An online survey was prepared via Google forms and sent to oncologists registered to the Turkish Society of Medical Oncology. One hundred twenty-eight oncologists answered the online survey.*

Results: *Twenty-three percent of the oncologists moved their facilities to another place in the hospital after the pandemic, which was resulted in nearly 90% of worse patient services. Seventy percent of the oncologists did not receive any duties on COVID-19 services after Turkey's first case. Thirty-one percent of the oncologists stated their oncology practice was disturbed by working in the COVID-19 services. Three oncologists accepted they were responsible for cross-infection to oncology patients. Eighty-five percent of the oncologists declared oncology practice was disturbed by the other specialists' assignment in COVID-19 services. The leading areas were general surgery, pulmonary diseases, and ENT, according to oncologists. Twenty-two percent of the oncologists needed to send their patients to other oncology clinics due to the COVID-19 pandemic.*

Conclusion: *Although oncologists tolerated oncological patient management alterations, the prolonged pandemic situation may harm oncology practice via the loss of oncologists' motivation and incomplete multi-disciplinary patient management. There is a need for follow-up studies to evaluate the situation for the alternation in the COVID-19 pandemic.*

Key words: *oncologists, professional practice, COVID-19*

Introduction

SARS-CoV-2 is a single-stranded RNA spherical virus with spikes formed by glycoproteins [1]. There are seven subtypes of the coronaviruses infecting humans, including MERS, SARS-CoV-1, and SARS-CoV-2 (COVID-19) [2]. COVID-19 targets ciliated bronchial epithelia and alveoli via angiotensin-converting-enzyme 2 (ACE-2). The primary transmission way of the virus is air-borne droplets [3,4]. The most reported symptoms were fever, cough, and shortness of breath. The leading cause of death was acute respiratory distress syndrome, myocardial injury, or renal failure [5]. The novel coronavirus (COVID-19) was defined in China, leading an outbreak, impacted the Oncology organizations, and obstructed the maintenance of cancer care [6].

Patients receiving cancer or transplant treatment are considered to have increased risk of

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death with COVID-19 infection. Cancer patients are considered one of the most sensitive groups to COVID-19 infection, leading to establishing unique protocols and guidelines for optimal health care delivery during the pandemic [7–9]. Radiation oncology organizations did surveys to understand the alteration in practice during the pandemic and tried to cope with rapid daily changes [10]. The difficulties among cancer care in different countries has been recently reported [11,12].

Oncology organizations published particular guidelines for patient care for both adjuvant and palliative care [13,14].

Turkey's Ministry of Health and Interior declared some regulations on the public, such as travel restrictions, traffic restrictions, social distancing homes, and centralized quarantine [16].

Although the alterations of cancer treatment maintenance were evaluated, the difference in the physicians' side was not determined. In this survey study, we tried to assess the alteration of Turkish oncologists' daily practice.

Methods

An online survey was prepared via Google forms and sent to oncologists registered to the Turkish Society of Medical Oncology. Three reminders were sent for one week period to the participants. One hundred twenty-eight oncologists answered the online survey. No presents or payments were given to the study participants; the survey was responded voluntarily.

The study was carried out according to the Declaration of Helsinki principles and all applicable regulations.

No special statistical analyses were performed. Descriptive data are presented either as means or medians for continuous variables; frequencies and percentages are reported for categorical variables.

Results

Nearly 70% of the participants were fellows and specialists. Half of the oncologists were working in university hospitals, while the second-largest participants were working in education and research state hospitals. Twenty-three percent of the oncologists moved their facilities to another place in the hospital after the pandemic, which resulted in nearly 90% of worse patient services (Figure 1). Almost 40% of the oncologists declared no different policies adopted to protect oncology professionals or oncology patients (Figure 2). Seventy percent of the oncologists did not receive any duties on COVID-19 services after Turkey's first case. This ratio increased to 81% after the Turkish Ministry of Health's advisory held back hematologists, radiation, and medical oncologists from COVID-19 services.

Sixty percent of the oncologists declared they retained to work in COVID-19 services by the hospital governance pressure after advisory of the Turkish Ministry of Health. Thirty-one percent of the oncologists stated their oncology practice was disturbed by working in the COVID-19 services. Three oncologists accepted they were responsible for cross-infection to oncology patients. Eighty-five percent of the oncologists declared oncology practice was disturbed by the other specialists' assignment in COVID-19 services. The leading areas were general surgery, pulmonary diseases, and ENT, according to the oncologists. Twenty-two percent of the oncologists needed to send their patients to other oncology clinics due to the COVID-19 pandemic. Forty-three percent of the oncologists were required to send their patients to patient care for non-oncology services (surgery, radiology, etc.) (Figures 3,4). Nearly 60% of the oncologists declared their income was decreased with the pandemic. Most oncologists had reduced income between 21-40%, while the second most decreased ratio was 41-60% (Figure 5). Thirteen out of 128 oncologists had COVID-19 infection during this period.

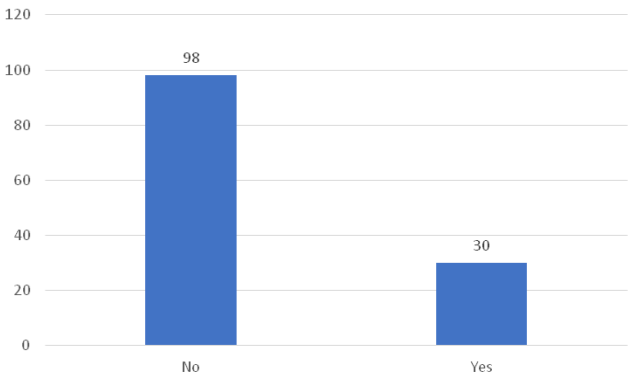

Figure 1. The replacement of the oncological outpatient or inpatient clinics after the COVID-19 pandemic.

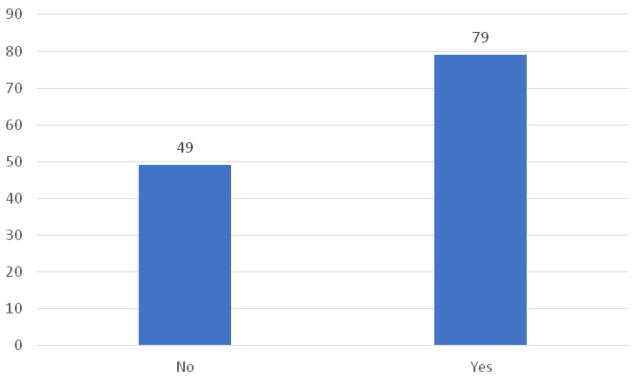

Figure 2. The extra precautions for prevention of COVID-19 infection for both oncology patients and professionals.

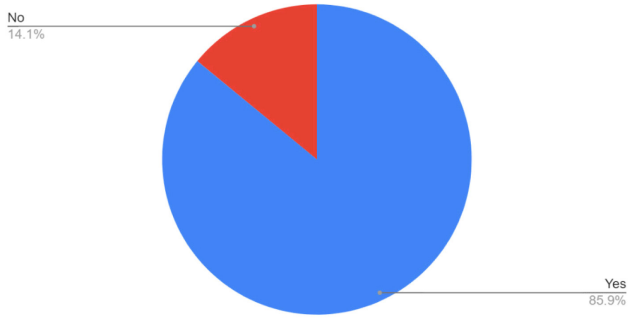

Figure 3. The ratio of the difficulties of oncological patient management due to other services.

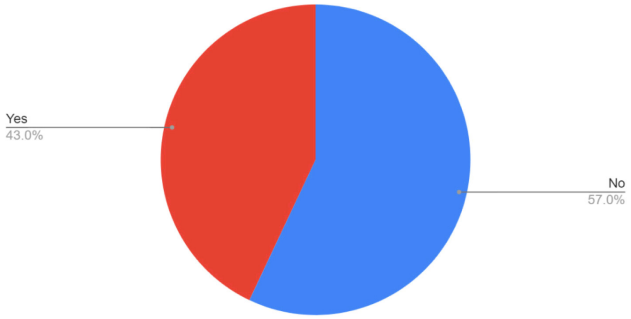

Figure 4. The necessity of providing non-oncological procedures on oncologic patients.

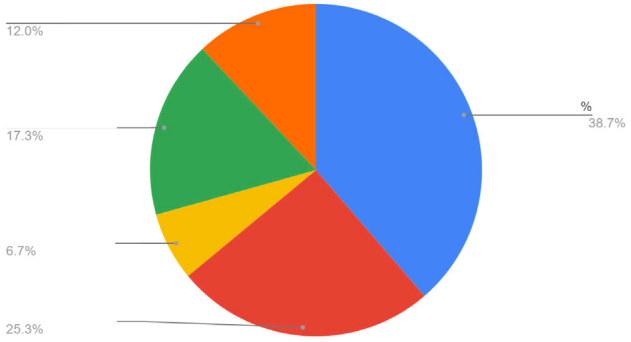

Figure 5. The reduction of the oncologists' income during the COVID-19 pandemic.

Discussion

This study showed the interruption of oncology practice by the COVID-19 pandemic and local committees and Turkish Ministry of Health regulations. The most significant oncology practice impact was a delay in non-oncological procedures and a lack of prevention for oncology professionals and patients.

The Turkish oncologic authorities declared to evaluate every patient receiving chemotherapy independently for possible risk-benefit acquisition but did not offer to delay treatment for any cost [17]. In a recent study, Guven et al reported a significant decrease in outpatient admissions after the first COVID-19 patients in a unique oncology center. Although they found a considerable difference for outpatients, they also reported a substantial increase in patients' hospitalization for chemotherapy [18]. Some recent studies showed the chemotherapy adherence was disrupted by COVID-19 fear and regulations [12,18].

This study showed that oncologists were mainly preserved from COVID-19 patient management. Although the Turkish Ministry of Health considered a delayed intervention, local managers take responsibility to keep oncologists in the background during the fight for the COVID-19 pandemic. Also, increased academic professionals may have played a role in this phenomenon. In contrast to this evidence, the specialists working for state hospitals may have increased pressure to work for COVID-19 clinics due to mobbing or financial concerns. The decrease in the income also may play a decisive role for some of the oncology specialists. In contrast to high COVID-19 infection rates among oncologists, cross-infection was not seen among patients treated by these oncologists.

In the long-term this situation may decrease the motivation of oncologists with an extended workload. The other problem in oncology patient management was the loss of multi-disciplinary patient management, which resulted in high rates of referral to other hospitals for surgical and non-surgical interventions.

Conclusion

Although oncologists tolerated oncological patient management alterations, the prolonged pandemic situation may harm oncology practice via the loss of oncologists' motivation and incomplete multi-disciplinary patient management. There is a need for follow-up studies to evaluate the situation for the alternation in the COVID-19 pandemic.

Conflict of interests

The authors declare no conflict of interests.

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