Coronavirus (COVID-19) Pandemic and Radical Cystectomy

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Cite this article as: *Adanur S, Al S, Polat O. Coronavirus (COVID-19) Pandemic and Radical Cystectomy. Eurasian J Med 2020; 52(2): 106-7.*

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Received: May 28, 2020
Accepted: June 1, 2020

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DOI 10.5152/eurasianjmed.2020.010620

COVID-19 caused by the coronavirus (SARS-CoV-2) and its associated disease has spread rapidly worldwide. On March 11, 2020, COVID-19 was announced by WHO as a global pandemic. According to the online database of the Johns Hopkins University (JHU) by May 22, 2020, 154,500 infections, 4,276 deaths, and 116,111 recoveries had been confirmed in Turkey [1, 2]. The pandemic put a great responsibility and huge burden on health systems around the world, forcing them to change their working order. During this period, many governments have decided to postpone elective surgeries, with the exception of emergency surgical interventions to reduce the bed capacities of clinics and to limit patients in polyclinics in order to increase the capacities of the intensive care units.

The COVID-19 pandemic was experienced at different densities at each urology center. In the academic hospital where our clinic is located, all elective outpatient applications were canceled, and the availability of the operating room and intensive care beds for any elective surgery was greatly limited.

There was no consensus at the beginning of the pandemic about how to behave in uro-oncological cases that should be prioritized. Risk of serious events associated with COVID-19 in this patient group is 3.5-fold greater compared with the general population, such as death or admissions to intensive care units, requirement for mechanical ventilation, due to the nature of malignancies in cancer patients and immune deficiency associated with anti-cancer management (chemotherapy, radiotherapy, or surgery) [3, 4].

In this group of patients, a balance must be established between the damages that may arise from delaying the treatments against the risk caused by a possible coronavirus infection. Curative oncological surgery is recommended by the European Association of Urology Guidelines Office for high-risk cancers without any delay [5].

Prostate cancer, bladder cancer, and kidney cancer, which constitute 7.1%, 3.0%, and 2.2% of all cancers, respectively, are an integral part of daily urological applications [6]. The standard treatment of muscle invasive bladder cancer is radical cystectomy. A 90-day delay in performing radical cystectomy may be associated with reduction in overall survival and in progression-free survivals, higher pathological stage, and an increase in pathological lymph node positivity rates. The risk of immunosuppression that neoadjuvant chemotherapy may bring against its benefit should also be considered [7].

In accordance with the recommendations of international guidelines, we performed radical cystectomy and ileal conduit operation in eight patients with an average age of 62.8 years with the diagnosis of muscle invasive bladder tumor in our clinic between March 11, 2020 and May 22, 2020. Four patients had comorbidities such as diabetes mellitus, coronary artery disease, and previous cerebrovascular events. Wound infection developed in three patients in the post-operative period, which was treated with intravenous antibiotherapy based on antibacterial susceptibilities in wound cultures. Patients with an average hospitalization time of 11 days were

discharged with full recovery. One patient was re-hospitalized with a complaint of anuria and abdominal distention after discharge. Bilateral nephrostomy catheters were inserted into the patient with bilateral grade 3 hydronephrosis. The patient, who was re-operated by the General Surgery Clinic with a preliminary diagnosis of acute abdomen, showed an incarcerated ileal segment and mechanical pressure on the ureteroileal anastomosis site. The incarcerated intestinal segment was excised and re-anostomosis was performed. After the mechanical pressure was relieved, the patient had urine output from the stoma. The patient, whose nephrostomies were removed, was discharged with full recovery.

We maintained safe and effective antitumoral treatment during the treatment of these patients who were not directly affected by the pandemic. In addition, our awareness of the pandemic was at a high level, and we took infection prevention measures as a whole team. COVID-19 symptoms were ruled out in the patients before hospitalizing them. Patients were admitted to the hospital with a surgical mask and kept in single rooms, isolated from unrelated healthcare personnel and patients. The operation was performed with a minimum number of surgical team members, and all preventative measures were taken. Postoperative patient visits were made with a minimum number of people and within a minimum period of time using a surgical mask. Wound treatments were applied meticulously by a single doctor after taking necessary precautions.

The COVID-19 pandemic is by far one of the largest outbreaks of health systems worldwide. High-risk urological cancers that may have a negative effect on the patient's survival if their treatment is postponed. This group patients can be treated safely and effectively with minimal complication rates by taking all the recommended measures during such pandemic periods.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - O.P.; Design - S.A.; Supervision - O.P.; Data Collection and/or Processing - S.A.I.; Analysis and/or Interpretation - S.A.; Literature Search - S.A.; Writing Manuscript - S.A.; Critical Review - O.P.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

References

1. Dong E, Du H, Gardner L. An interactive web-based dashboard to track COVID-19 in real time. Lancet Infect Dis 2020; 3099: 19-20. [Crossref]
2. COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU) (Accessed: 22th of May). (2020). Available at: https ://coron avirus. jhu.edu/map.html.
3. Liang W, Guan W, Chen R, et al. Cancer patients in SARSCoV-2 infection: a nationwide analysis in China. Lancet Oncol 2020; 21: 335-7. [Crossref]
4. Ueda M, Martins R, Hendrie PC, et al. Managing Cancer Care During the COVID-19 Pandemic: Agility and Collaboration Toward a Common Goal. J Natl Compr Canc Netw 2020; 1-4. [Crossref]
5. Ribal MJ, Cornford P, Briganti A, et al. European association urology guidelines office rapid reaction group: anorganisation-wide collaborative effort to adapt the European association of urology guidelines recommendations to the coronavirus disease 2019 era. Eur Urol 2020; DOI: 10.1016/j.eururo.2020.04.056. [Crossref]
6. Bray F, Ferlay J, Soerjomataram I, et al. A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin 2018; 68: 394-424. [Crossref]
7. Mmeje CO, Benson CR, Nogueras-González GM, et al. Determining the optimal time for radical cystectomy after neoadjuvant chemotherapy. BJU Int 2018; 122: 89-98. [Crossref]