Balancing risk and benefit during coronavirus

Although viral outbreaks are not new, it seems fair to say that the medical world was largely unprepared for the magnitude of the potential impact of COVID-19. Yet, if there is one bright spot, it is the rapidity and cohesiveness of actions taken by policy makers, physicians, and the public alike to ensure the safety of the general population, as well as its most vulnerable. In that regard, the International Lymphoma Radiation Oncology Group (ILROG) should be commended for the timely preparation of a summary document providing guidance for radiation oncologists during this time of massive disruption.

By definition, patients with hematologic malignancies, including lymphoid cancer, represent “the most vulnerable.” In addition to the immune dysregulation caused by lymphoma, many patients receive therapy that causes profound immune suppression. Also, with a median age for most lymphoma subtypes in the mid-60s, many patients are elderly and have concomitant comorbidities that further contribute to heightened risk.

As we aim to maintain quality care for our patients, most of us must balance various considerations. What is the immediate risk posed by the patient’s lymphoid cancer, and what are the expected trajectory and speed of disease evolution? What are the implications of treatment delay or alteration? What are the risks of continuing treatment that may increase immune suppression? Will a selected therapy prompt an emergency room visit or hospitalization for complications? Will blood product transfusion support be necessary? What are the viral exposure risks to patients and staff of recurring on-site visits for follow-up appointments, the delivery of IV systemic or radiation therapy, or inpatient treatment administration? Will resources need to be rationed because of the lack of medical supplies or personnel? And finally, how long will the threat of COVID-19 last?

As we face these questions on a daily basis, our goal is to achieve a balance between risk and benefit. As such, treatment plans are being redesigned to optimize benefit while minimizing toxicity, viral exposure risk, and resource utilization. Although patient decisions need to be individualized, ideally, our approach should be consistent. The document provided by the ILROG task force provides a template for radiation oncologists to uniformly adapt radiation strategies when necessary. While adhering to acceptable radiobiological principles with a focus on safety, they provide suggestions for strategies to omit, delay, or shorten the radiation therapy course using altered dose and fractionation schedules. Recommendations consider the overall goals of therapy, disease-specific factors, and concerns for acute and delayed toxicities. Importantly, this document can serve as a playbook that can be rapidly resurrected when needed, thereby contributing to future preparedness.

It is imperative that, as we adapt practices and care for patients in the setting of COVID-19, we create thoughtful algorithms that can be modified as the situation evolves. The American Society of Hematology (ASH) Web site (https://hematology.org) now provides a link with COVID-19 resources, including expert input on disease management. It is also important that we have the ability to examine outcomes and learn from these efforts. The ASH Research Collaborative’s Data Hub has recently established a COVID-19 registry for patients with hematologic malignancies. This global initiative endeavors to provide nearly real-time clinical data summaries on people with COVID-19 and a history of hematologic malignancy, creating an invaluable resource to guide clinicians based on our collective experience. All treating clinicians are urged to contribute to this important effort, which can be accessed at https://www.ashresearchcollaborative.org/covid-19-registry.

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