Immune-related adverse events (irAEs) are a complex category of symptoms driven by anti-cancer immunotherapy (IO) treatments. The use of IO has burgeoned since the approval of ipilimumab in 2011 through multiple approvals of anti-PD-1/PD-L1 drugs and most recently CAR-T therapies, and so too has the number of recognized irAEs.

When we first started using IO, we were hopeful that a predictable and recognizable pattern of irAE timing would emerge. Early publications identified rash and pruritus as the earliest onset irAEs, followed by liver toxicity, diarrhea/colitis, and hypophysitis. However, as we have developed treatment regimens combining multiple IO drugs, IO + radiation, IO + targeted therapy, or IO + chemotherapy, the variety and timing of irAEs have become more heterogeneous and remain unpredictable. Recent published reports of irAEs in the combination setting have time to onset ranging from 1 to 500 days, and the time-to-resolution data demonstrates that not all irAEs resolve. Even irAEs that we previously considered entirely treatable, such as dermatitis, have the potential in some cases to be life-long toxicities.

This presents a unique challenge in the concurrently growing field of cancer survivorship. Currently, there are more than 13 million cancer survivors in the U.S. alone and that number is expected to reach 18 million by 2022. Increasing numbers of these survivors will have received IO as part of their cancer treatment. Our goal as oncology providers transitioning patients from active therapy to surveillance is to provide accurate and comprehensive information on their cancer treatments that can easily be shared with other members of their medical team, such as the primary care provider.

We call this document a Survivorship Care Plan (SCP). SCPs give survivors recommendations on surveillance for long-term toxicity, such as cardiac toxicity from prior doxorubicin. However, in the setting of IO, if we cannot predict the nature, severity, or timing of irAEs, how do we educate and surveil our patients?

Likely, the solution will depend on improved collaboration with other specialty and primary care providers. As a healthcare team, we need to have heightened awareness that even a patient years out from IO therapy has the potential to develop an irAE. We can provide patients with our best and most current data regarding the commonly seen irAEs and anticipated time to onset. Simultaneously, we can educate our patients that any new or unusual symptom should be reported right away, regardless of when it develops, as it may be an irAE. Hopefully in the not-so-distant future, we will have a better understanding of what causes irAEs, which patients are at highest risk, and how best to manage these potentially long-term IO toxicities.

How are you educating your patients on long-term irAEs? Is your survivorship care plan model evolving to enable patients to effectively manage their care with other providers?

Managing irAEs into Post-Treatment Survivorship

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