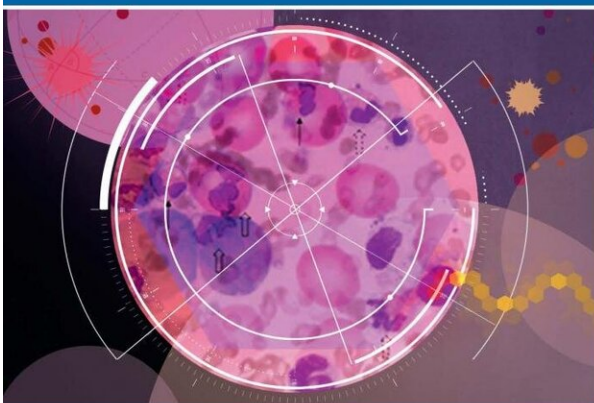


New research sheds light on multi-organ adverse events from immunotherapy

September 8 2020

JOURNAL OF THE NATIONAL COMPREHENSIVE CANCER NETWORK



NCCN Guidelines®

- MYELOID/LYMPHOID NEOPLASMS WITH EOSINOPHILIA AND TK FUSION GENES 

NCCN Guidelines® Insights

- KIDNEY CANCER

ONCOLOGY WATCH

COVID-19 and Cancer: Unintended Consequences
Tempero M

THE LAST WORD

Immune-Related Adverse Events (irAEs): Implications for Immune Checkpoint Inhibitor Therapy
Zhou N, Velez MA, Owen D, and Lisberg AE

NCCN POLICY REPORT

NCCN Patient Advocacy Summit: Delivering Value for Patients Across the Oncology Ecosystem
Johnson T, Bandini LAM, Mitteldorf D, et al

MOLECULAR INSIGHTS IN PATIENT CARE

Complexities of Next-Generation Sequencing in Solid Tumors: Case Studies
Sokolova AO, Shirts BH, Konnick EQ, et al

REVIEWS

A Practical Guide for Using Myelofibrosis Prognostic Models in the Clinic
How J and Hobbs GS

What's in a Number? Examining the Prognostic and Predictive Importance of Platelet Count in Patients With Essential Thrombocythemia
Kuykendall AT and Komrokji R

ORIGINAL RESEARCH

Multiorgan Immune-Related Adverse Events During Treatment With Atezolizumab
Kichenadasse G, Miners JO, Mangoni AA, et al

Cost-Effectiveness of Initial Versus Delayed Lanreotide for Treatment of Metastatic Enteropancreatic Neuroendocrine Tumors
Barnes JI, Lin JK, Gupta D, et al

Factors Associated With Detection and Survival of T1 Hepatocellular Carcinoma in the United States: National Cancer Database Analysis
Yang JD, Luu M, Singal AG, et al

Depressive Symptoms in Danish Patients With Glioma and a Cancer-Free Comparison Group
Leppenthin K, Johansen C, Larsen MB, et al

Conditional Survival and Cure of Patients With Colon or Rectal Cancer: A Population-Based Study
Qaderi SM, Dickman PW, de Wilt JHW, and Verhoeven RHA

Clinical Utility of ¹⁸F-FDG PET/CT in Staging Localized Breast Cancer Before Initiating Preoperative Systemic Therapy
Ko H, Baghdadi Y, Love C, and Sparano JA

New international research in the September 2020 issue of *JNCCN—Journal of the National Comprehensive Cancer Network* adds important knowledge about how immunotherapy-related adverse events (irAEs) can impact more than one organ in a single patient. This study provides new information on how frequently multiple organ side effects occur, and reveals that multi-organ irAEs are more likely to happen sequentially rather than simultaneously.

"Multi-organ irAEs are under-recognized, under reported, and their pathophysiology is poorly understood," said lead researcher Ganessan Kichenadasse, MBBS, FRACP, Flinders Centre for Innovation in Cancer, Flinders University, in Bedford Park, Australia. "We need a concerted [international effort](#) to improve our understanding and help identify predisposing factors and prevention strategies. Treating teams should be aware of the potential for irAEs which affect multiple organs and institute plans for recognizing and managing them."

The researchers evaluated the incidence and patterns of multi-organ irAEs using individual patient data from four non-small cell lung cancer trials where patients were treated with atezolizumab, a PD-L1 inhibitor. Those four studies, known as OAK, POPLAR, BIRCH, and FIR, include investigators from around the world. Out of 1,548 patients worldwide, 27% experienced at least one adverse event; 5.4% experienced multi-organ irAEs. Skin, laboratory, endocrine, neurologic and pulmonary abnormalities represented the most common organ systems involved.

Among the 84 cases with multi-organ irAEs, 70 patients (83.3%) had two organ systems affected, 13 (15.5%) had three, and one patient had four systems affected. 86% of multi-organ irAE patients experienced

these side-effects sequentially rather than concurrently. According to the results, multi-organ irAEs were generally amenable to satisfactory management, and their occurrence was associated with better overall survival rates.

"Based on the mechanisms of action for these immune checkpoint agents, tumor response and irAEs are likely to have a common pathophysiology," said Dr. Kichenadasse. "There is also probably a cumulative immune activation with every dose of immunotherapy, meaning lengthier treatment could lead to both better survival and added organ damage. However, it is important to highlight that this analysis was exploratory and hypothesis generating; these results need to be confirmed through additional research."

"This study confirms that more than one organ, at the same time or sequentially, can be affected by immune-related adverse events from checkpoint inhibitor therapy," commented Igor Puzanov, MD, MSci, FACP, Professor of Medicine, Director of the Early Phase Clinical Trials Program and Chief of Melanoma at Roswell Park Comprehensive Cancer Center, who was not involved in this study. "This is worth noting for all practicing oncologists and other specialists taking care of patients who are receiving these therapies. The silver lining here is the seemingly improved overall survival we see among these patients."

More information: Ganessian Kichenadasse et al, Multiorgan Immune-Related Adverse Events During Treatment With Atezolizumab, *Journal of the National Comprehensive Cancer Network* (2020). [DOI: 10.6004/jnccn.2020.7567](https://doi.org/10.6004/jnccn.2020.7567)

Provided by National Comprehensive Cancer Network

Citation: New research sheds light on multi-organ adverse events from immunotherapy (2020, September 8) retrieved 5 July 2023 from <https://medicalxpress.com/news/2020-09-multi-organ-adverse-events-immunotherapy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.