In Reply — Immune Checkpoint Inhibitor–Induced Type 1 Diabetes: An Underestimated Risk

In reply: We thank Drs Akturk and Michels for their interest in our article and for further expanding on the importance of immune checkpoint inhibitor (ICI)—induced diabetes. The incidence of ICI-induced diabetes has increased from a few case reports in 2015 to a recently reported incidence of 1.8% based on our experience at Mayo Clinic. The increased incidence may be associated, at least in part, with the expanding use of these medications. In addition, according to this retrospective analysis from our institution, this adverse event appears to occur more often with the anti–programmed cell death 1 ligand pembrolizumab, followed by the anti–programmed cell death 1 agent nivolumab. No cases were seen with ipilimumab, an anti–cytotoxic T lymphocyte associated antigen 4 agent.

As pointed out by the authors of the Letter to the Editor on their recent meta-analysis, diabetes induced by ICIs tends to present with severe diabetic ketoacidosis, particularly in patients with type 1 diabetes—associated antibodies. The onset of diabetes can be rapid. In addition, it can occur early after initiation of therapy or up to a year after initiation of these medications, and will often require permanent insulin replacement therapy. Considering the expected increase in the usage of ICIs, we agree that increasing the awareness of this immune-related adverse event is of utmost importance.

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Legacy of Nutritionist Ancel Keys

To the Editor: A diet high in saturated fat increases risk for heart disease and stroke. We know this, but few can recall who first uncovered the connection. It was Ancel Keys—a name to note and remember. Some 60 years ago, he was a luminary in medical science with a reputation that reached ordinary Americans. In 1961, his image graced the cover of TIME magazine. He was the first to promote the health benefits of the Mediterranean diet. An esteemed professor at the University of Minnesota, Ancel Keys was brilliant, bold, and worldly.

A life full of adventures and discoveries, his story is extraordinary. Born to teenagers in 1904, Ancel was raised in Berkeley, California, where the family struggled. Growing up, he worked unusual jobs for a city boy: as a gofer in a lumber camp, powder monkey in a Colorado gold mine, and guano shoveler in an Arizona bat cave. In 1922, he started at the University of California at Berkeley. The summer after his first year he signed on as an oiler on a steamship to Asia, learning Chinese on the side. After 3 months at sea, he returned to campus and completed his undergraduate degree in 2 years. After a brief stint at a Woolworth store — where “the work soon became intolerably dull” — he returned to UC-Berkeley, found topics that interested him, and, with his substantial intellect, breezed through, earning a PhD in biology in 1930.

A 2-year fellowship took him to Copenhagen to work under August Krogh, a Nobel laureate in physiology. Next, he went to the University of Cambridge, and, under mentor Joseph Barcroft, became intrigued with studying how the human body adapts to extreme conditions; in 1936 he was awarded a second PhD (in physiology). Then L.J. Henderson, director of the acclaimed Harvard Fatigue Laboratory, cabled him with an offer, so off he went to join D.B. Dill, the lab’s research leader, and his elite cadre of physiologists and biochemists. This led to his pioneering work on the oxygen-carrying capacity of blood. At the age of 29 years, Ancel Keys,

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