1236 OUTCOMES AND ADVERSE EVENTS IN CANCER PATIENTS AFTER DIAGNOSIS OF IMMUNOTHERAPY-ASSOCIATED DIABETES MELLITUS: A RETROSPECTIVE COHORT STUDY

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Background Immune checkpoint inhibitor (CPI)-induced diabetes mellitus (CPI-DM) is a rare immune-related adverse event (irAE), occurring in approximately 0.2–1.9% of patients receiving CPIs[1]. Unlike other irAEs, it is thought that discontinuing CPIs does not reverse CPI-DM once injury to beta-cells has occurred.[1–3]Patients and providers fear that continuing CPIs puts patients at risk for additional morbidity from future irAEs and may discontinue therapy.[4] Currently, there is little data to inform this decision, including whether cancer outcomes are affected by discontinuing CPIs due to irAEs. This study aims to understand if discontinuing CPIs after diagnosis of CPI-DM impacts development of future irAEs and cancer outcomes.

Methods Patients who developed CPI-DM during cancer treatment at UCSF from 7/1/2015 to 3/1/2023 were analyzed for cancer outcomes and irAE development. Fisher's exact tests, student t-tests, Kaplan-Meier methods, and Cox regression were used as appropriate.

Results Of 41 patients with CPI-DM, 23 (56%) discontinued CPIs at CPI-DM diagnosis and 18 (44%) promptly resumed CPI. Of those that discontinued, 9 (39%) and 7 (30%) had a complete response/no evidence of disease and partial response (PR), respectively. Among those who resumed CPIs within 90 days, 2 (11%) and 11 (61%) had no evidence of disease and PR, respectively. Four (10%) subjects resumed CPI after 90 days due to disease progression. Nine of 22 (41%) who resumed CPI had subsequent irAEs, among which dermatitis (33.3%), arthritis (22.2%), and colitis (22.2%) were most common. Three of 19 (16%) had irAEs after CPI-DM diagnosis despite discontinuing CPI ($p=0.1$) with development of hepatitis (n=1), sicca and sarcoidosis (n=1) and colitis (n=1) (figure 1). There was no significant difference in death ($p=0.5$), or time to death ($p=0.46$) between those who discontinued CPI at CPI-DM diagnosis and those who did not.

Conclusions It remains unclear if patients who have developed CPI-DM are at higher risk for subsequent irAE if CPI are resumed. Given our small sample size and borderline result, further studies are required before determining this risk. While our study did not show worse cancer outcomes after discontinuing CPIs, many variables impact outcomes such as type of cancer, stage, performance status, and future treatment which our study is not adequately powered to evaluate. Overall, this suggests that a nuanced approach is needed in deciding whether to continue CPI treatment after a severe irAE like CPI-DM, taking into account patient's response to treatment, comorbidities, and risk tolerance.

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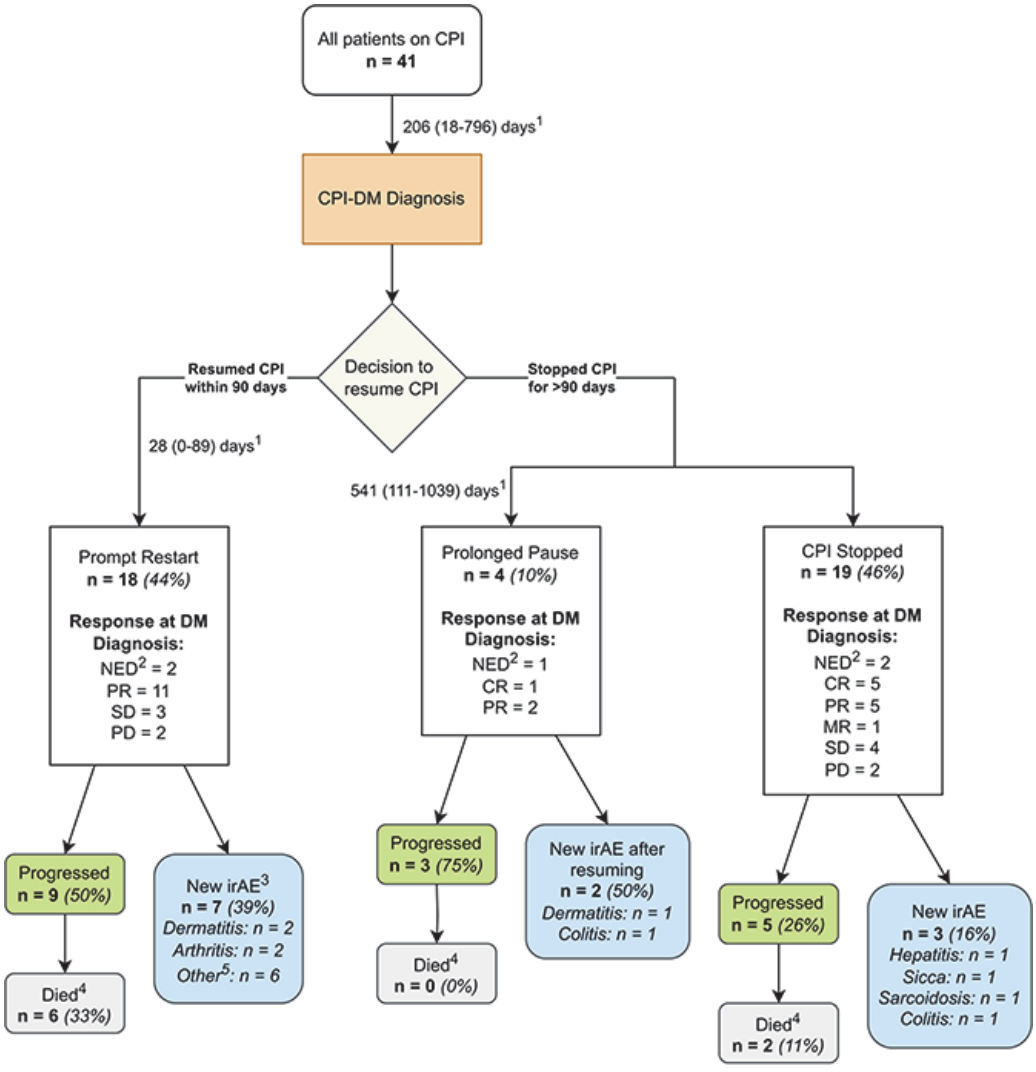
Ethics Approval This study was approved by the UCSF Institutional Review Board; approval number 10–02467.



[1]median (range)
[2]No evidence of disease after completing a treatment course that included CPI in the adjuvant or neoadjuvant setting
[3]Includes one patient who had a possible irAE
[4]Does not include patients who died from alternate causes
[5]Other: nephritis, adrenal insufficiency, hypothyroidism, colitis, sicca, hepatitis, or myalgias

Abstract 1236 Figure 1

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