OUTCOMES IN PATIENTS WITH PRE-EXISTING AUTOIMMUNE DISEASES WHO RECEIVED IMMUNE CHECKPOINT INHIBITORS: A REAL-WORLD STUDY

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Background Autoimmune diseases (ADs) affect more than 24 million people in the United States. Although patients with AD are usually excluded from ICI clinical trials, real world evidence suggests ICIs are used in this population. In this analysis, we describe the clinical outcomes of patients on ICI therapy with pre-existing ADs.

Methods This retrospective, observational study used the nationwide Flatiron Health electronic health record (EHR)-derived de-identified database to describe characteristics and outcomes in patients with pre-existing ADs (rheumatoid arthritis (RA), psoriasis/psoriatic arthritis (P/PA), multiple sclerosis (MS), Crohn's disease/ulcerative colitis/inflammatory bowel disease (CD/UC/IBD) and Others) who were treated with ICIs for advanced melanoma (aMel), metastatic renal cell carcinoma (mRCC), advanced non-small cell lung cancer (aNSCLC), hepatocellular carcinoma (HCC), or advanced bladder cancer (aBC). Overall survival (OS), Progression free survival (PFS), and Time to treatment discontinuation (TTD) were evaluated from the index date (first ICI treatment date). Baseline and clinical characteristics were analyzed using descriptive statistics, and time to event analysis for OS, PFS, and TTD were analyzed using Kaplan Meier methods. All analyses were conducted for the overall cohort and by subgroups including cancer type, AD type, line of therapy and ICI treatment group (monotherapy or combination). The ICI combination group included ICI + Chemo, ICI + targeted therapy, and ICI+ICI.

Results This study included 453 pts diagnosed with aMel, mRCC, aNSCLC, HCC, or aBC and treated with ICI from Jan 2015 to Oct 2021, with a pre-existing AD within 12 months of index date. Median age was 69.4 years; 55.4% were female and 76.8% were white. In the overall cohort, median OS was 11.1 months (95% CI: 9.0-14.0); median PFS was 4.2 months (95% CI: 3.5-4.8), and median TTD was 2.6 months (95% CI: 2.1-3.0). There were 301 patients who received ICI in the first line (1L) and 152 in the second line or later (2L+). OS and AD type by tumor type (1L and 2L+ combined) are described in (table 1).

Conclusions This real-world analysis is one of the largest studies describing clinical outcomes in patients with pre-existing ADs receiving ICI therapy. Further research is warranted to evaluate adverse event profiles and reasons for ICI discontinuation in this patient population.

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