

OUTCOMES OF PATIENTS WITH UNRESECTABLE HEPATOCELLULAR CARCINOMA WHO DEVELOPED AN INFECTION WHILE RECEIVING ATEZOLIZUMAB

Abdullah Esmail*, Jiaqiong Xu, Ethan Burns, Kelly Gee, Catherine Wiechmann, Yuqi Zhang, Ryan Kieser, Godsfavour Umore, Shivan Shah, Kai Sun, Maen Abdelrahim. *Houston Methodist Neal Cancer Center, Houston Methodist Hospital, Houston, TX, USA*

Background The therapeutic landscape of unresectable Hepatocellular carcinoma (uHCC) continues to evolve. Atezolizumab, an anti-programmed cell death ligand 1 (PD-1) immune checkpoint inhibitor (ICI) in combination with bevacizumab have substantially improved outcomes. While immune-related adverse events are a well-known complication of ICIs, infections, a common complication impacting morbidity and mortality in patients receiving systemic myelosuppressive chemotherapies, is seldom reported. The aim of this study is to evaluate the incidence, risk factors, and outcomes in patients who develop infections while receiving Atezolizumab and Bevacizumab for HCC.

Methods Patients who received Atezolizumab/Bevacizumab for uHCC from 1/9/2017–12/28/2022 at a single hospital network were included. Covariates compared among infected and non-infected cohorts included age, sex, race, comorbidities, ECOG, immunosuppressive use, chronic infections, antibiotic or antiviral therapies at ICI initiation, and line of therapy (1L, 2L, >2L). Outcome measures compared included the number of emergency department (ED), hospital, and intensive care unit (ICU) admissions, number of cycles received, median overall survival (OS), and progression-free survival (PFS). Fisher's exact test for categorical variables and Mann-Whitney test for continuous variables were used to compare cohorts. Kaplan-Meier methodology compared OS and PFS. All analyses were deemed statistically significant if the p-value was <0.05.

Results Of 810 evaluable patients, a total of 34 patients who had uHCC were treated with Atezolizumab. The mean±SD age was 66.29±9.39, and 28 (82.35%) were males. Infection was reported in 17 (50%) patients, with bacteremia reported in 3 (17.6%) and COVID-19 reported in 4 (23.5%). Infected vs non-infected received a median of 12 (5–17) vs 4 (3–12) ICI cycles (p= 0.18). Baseline demographics did not contribute to infectious risk. The number of ED visits and inpatient hospitalizations was not significant; however, ICU admissions were significantly higher in the infected vs non-infected group (5 (29.41%) vs 0(0.0%)) (p= 0.44). Infections did not negatively impact OS or PFS but resulted in treatment delays and discontinuation in 11 (64.71%) and 7 (41.18%) patients, respectively. At the last follow-up, 19 (55.88%) patients died, 9 (52.94%) non-infected group vs 10 (58.82%) in the infected group (p= 1.0).

Conclusions While a broad array of infections occurred in 50% of the patients of this cohort, it did not negatively impact survival outcomes. However, it did impact morbidity with a higher number of all-cause admissions and treatment delays. Infection rates should be included in prospective studies.

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