Real-World Zanubrutinib Treatment Patterns in Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma Among US Community Oncology Patients With Prior Acalabrutinib Therapy

Authors

Jing-Zhou Hou, MD, PhD[1]; Gregory A. Maglinte, PhD, MPH[2]; Xiaoliang Wang, PhD, MPH[2]; Anupama Vasudevan, BDS, MPH, PhD[3]; Anna Rui, MPH[3]; Brandon Wang, MBA[3]; Ann Lasn[2]; Lisa Morere[3]; Rhys Williams, PhD[2]; Rushir Choksi, MD[1]

[1]UPMC, Pittsburgh, PA, USA; [2]BeiGene, San Mateo, CA, USA; [3]Integra Connect PrecisionQ, West Palm Beach, FL, USA

Background

Despite higher selectivity of the second-generation Bruton tyrosine kinase (BTK) inhibitor acalabrutinib compared with the first-generation BTK inhibitor ibrutinib, a notable fraction of clinical trial patients treated with acalabrutinib discontinued treatment due to adverse events. The next-generation BTK inhibitor, zanubrutinib, was designed to maximize efficacy and tolerability in patients by minimizing off-target binding.

Aims

The study objective was to evaluate the characteristics, treatment duration, and reasons for treatment discontinuation in patients with chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL) previously treated with acalabrutinib who received zanubrutinib in the real-world US community oncology setting.

Methods

This retrospective observational study included US adult patients with CLL/SLL who initiated acalabrutinib at any time between January 1, 2020, and November 30, 2023, and subsequently received zanubrutinib at any time through April 18, 2024. Index date was the start date of zanubrutinib. The study utilized structured and curated electronic health data from the Integra Connect-PrecisionQ de-identified real-world database. Demographic and treatment characteristics were summarized using descriptive statistics.

Results

A total of 151 patients were included in the analysis. Median age (range) at index date was 74 (39, 90) years, and 75 (49.7%) patients were female. One hundred and four (68.9%) patients were identified as White, nine (6.0%) as African American, and two (1.3%) as Asian.

Most patients received prior acalabrutinib in the first (50.3%) or second (25.8%) line of therapy. Approximately 70% of patients discontinued acalabrutinib within 1 year. After acalabrutinib therapy, 79.5% of patients were treated with zanubrutinib, 11.3% were treated with another drug (anti-CD20 monotherapy, n=8; chemoimmunotherapy, n=6; BCL2 inhibitor, n=3) followed by zanubrutinib, and 9.3% were treated with ibrutinib followed by zanubrutinib.

The median (interquartile range) duration of acalabrutinib in any line of therapy was 181 days (IQR 68, 391). After discontinuing acalabrutinib and initiating zanubrutinib, patients stayed on zanubrutinib for a median duration of 224 days (IQR 103, 398), with 93 (61.6%) patients remaining on zanubrutinib at data cut-off.

Conclusions

In the US community setting, most patients with CLL/SLL who received acalabrutinib then zanubrutinib discontinued therapy within 1 year of initiation. After prior acalabrutinib therapy, the majority of patients treated with zanubrutinib remained on treatment at data cut-off. Consistent with other real-world data from across the US, the effectiveness of zanubrutinib in CLL/SLL was demonstrated despite prior acalabrutinib treatment.