Real-World Zanubrutinib Treatment Patterns in Mantle Cell Lymphoma Among US Community Oncology Patients With Prior Bruton Tyrosine Kinase Inhibitor Therapy

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Background

Mantle cell lymphoma (MCL) is a rare and aggressive type of non-Hodgkin lymphoma. The next-generation Bruton tyrosine kinase (BTK) inhibitor, zanubrutinib, was developed to maximize efficacy and tolerability in patients by minimizing off-target binding. The FDA has approved acalabrutinib, as a single agent and in combination with bendamustine and rituximab, and zanubrutinib for treating relapsed/refractory MCL. The first-generation BTK inhibitor, ibrutinib, was voluntarily withdrawn in April 2023.

Aims

Here, we evaluate the characteristics, treatment duration, and reasons for treatment discontinuation in patients with MCL previously treated with ibrutinib or acalabrutinib who later received zanubrutinib in the real-world US oncology setting.

Methods

This retrospective observational study included US adult patients with MCL who initiated acalabrutinib or ibrutinib at any time between December 1, 2013, and November 30, 2023, and subsequently received zanubrutinib at any time through May 31, 2024. Index date was the start date of zanubrutinib. The study utilized structured electronic health data from the Integra Connect PrecisionQ de-identified real-world database. Descriptive statistics were summarized to describe demographic and treatment characteristics.

Results

Eighty patients were included in the study. Before zanubrutinib treatment, 21 had received acalabrutinib, 49 ibrutinib, and 10 ibrutinib followed by acalabrutinib. The median (range) age at index date was 76 (52, 88) years for the ibrutinib-to-zanubrutinib group, 76 (65, 88) years for the acalabrutinib-to-zanubrutinib group, and 72 (48, 86) years for the ibrutinib-to-acalabrutinib-to-zanubrutinib group; more males were included than females: 69%, 67%, and 80% males, respectively. Most patients in each group were White: 78%, 62%, and 80%, respectively. The majority of patients with prior ibrutinib received ibrutinib in the first (42.4%) and second (52.5%) line of therapy (LOT), while patients with prior acalabrutinib distributed more evenly in the first (38.7%), second (25.8%) and third (25.8%) LOT.

Fifty-four percent of patients with prior ibrutinib and 58% with prior acalabrutinib discontinued treatment within 1 year before initiation of zanubrutinib. Seventy-one percent of patients with prior ibrutinib and 58% with prior acalabrutinib initiated zanubrutinib as their subsequent therapy. The median duration of ibrutinib and acalabrutinib treatment prior to zanubrutinib treatment was 348 and 300 days, respectively. The median (interquartile range) duration of zanubrutinib treatment was 378 (126, 582) days, with 38 (47.5%) patients staying on zanubrutinib treatment at data cut-off.

Conclusions

In the US community setting, most patients with MCL treated with zanubrutinib who had prior ibrutinib or acalabrutinib treatment discontinued ibrutinib or acalabrutinib within 1 year. Real-world data from across the US have demonstrated the effectiveness of zanubrutinib in MCL after treatment with another BTK inhibitor. Reasons for discontinuation are still to be examined.