Abstract: P908

Title: ANTI-CD38 ANTIBODY RETREATMENT IN PATIENTS WITH RELAPSED/REFRACTORY MULTIPLE MYELOMA PREVIOUSLY TREATED WITH LENALIDOMIDE AND AN ANTI-CD38 ANTIBODY: REAL-WORLD DATA USING THE US FLATIRON DATABASE

Abstract Type: Poster Presentation

Topic: Myeloma and other monoclonal gammopathies - Clinical

Background:

Use of lenalidomide (LEN) and an anti-CD38 monoclonal antibody (aCD38) has become common practice in treating both newly diagnosed and early relapsed/refractory multiple myeloma (RRMM). With increased use of aCD38, however, it is unclear whether patients (pts) benefit from aCD38 retreatment.

Aims:

To assess the real-world effectiveness of treatments received post LEN and aCD38 in pts with RRMM who were retreated or not with an aCD38-containing regimen.

Methods:

This retrospective observational study used electronic health records from a longitudinal, nationwide, de-identified research database (Flatiron Health). Eligible pts were ≥ 18 years of age, were diagnosed with RRMM, had ≥ 2 clinic visits on or after January 1, 2011–June 30, 2022, had received prior LEN and an aCD38 (same or different treatment lines), and had initiated a subsequent line of therapy (LOT; index regimen). The index date was defined as the start date of the index regimen. The aCD38 retreatment was determined based on whether the index regimen contained an aCD38 regardless of whether the retreatment occurred immediately after the last LOT or not. Pt characteristics and treatment patterns were analyzed using descriptive statistics. Kaplan–Meier curves were used to describe clinical outcomes from index date including progression-free survival (PFS) and overall survival (OS). A multivariable Cox proportional hazards model was conducted to evaluate the associations of aCD38 retreatment with PFS and OS, adjusting for prognostic factors such as high cytogenetic risk, number of prior LOTs, and aCD38-refractory status.

Results:

Of the 845 pts identified who were previously treated with LEN and an aCD38, 396 (46.9%) received an aCD38-containing index regimen (aCD38 retreatment), and 449 (53.1%) received a non-aCD38-containing index regimen (no aCD38 retreatment); median follow-up was 11.8 months (m; range: 0.1–64.8) and 8.7 m (range: 0.1–73.9), respectively. Median age was 69 years (range, 36–85) in both groups. For pts retreated with an aCD38, 13.4% were African American, 67.4% had an ECOG PS score of 0 or 1, 32.6% had high cytogenetic risk, 27.0% were aCD38-refractory, and 8.3%, 35.9%, 25.0%, and 30.8% had previously received 1, 2, 3, and ≥ 4 prior LOTs, respectively. Almost all (96.7%) pts were retreated with a daratumumab (DARA)-containing regimen, and the most common regimen received was DARA + pomalidomide (POM) + dexamethasone (DEX) (n=90; 22.7%). For pts without aCD38 retreatment, 16.5% were African American, 67.9% had an ECOG PS of 0 or 1, 37.6% had high cytogenetic risk, 39.9% were aCD38-refractory, and 5.6%, 28.7%, 28.5%, and 37.2% had previously received 1, 2, 3, and ≥ 4 prior LOTs, respectively. The most common regimen received was POM + carfilzomib + DEX (n=44; 9.8%).

Median PFS and OS were numerically longer in pts with aCD38 retreatment vs those without (**Table**). Overall, the median PFS was 6.5 m for aCD38-retreated pts and 4.4 m for pts without aCD38 retreatment; median OS was 38.9 m for aCD38-retreated pts and 16.8 m for pts without aCD38 retreatment. Similar findings were observed when stratifying by number of prior LOTs (i.e., 1-3 and ≥ 4 prior LOTs). Multivariable Cox proportional hazards models showed a lower risk of progression (HR, 0.73; 95% CI, 0.62–0.86) or death (HR,

0.70; 95% CI, 0.56–0.87) for all aCD38-retreated pts.

Summary/Conclusion:

This retrospective real-world analysis demonstrated that aCD38 retreatment could be a viable treatment option in pts with RRMM previously treated with LEN and an aCD38. Future prospective studies are needed to confirm this finding.

Table. Median PFS and OS among patients with RRMM with and without aCD38 retreatment, overall and by number of prior LOTs

	With aCD38 retreatment			Without aCD38 retreatment		
	N	Estimate (m)	95% CI	N	Estimate (m)	95% CI
Median PFS						
All patients	396	6.5	5.3–7.7	449	4.4	3.7–5.2
1–3 prior LOTs	274	7.9	5.6–10.6	282	4.9	3.8–6.5
≥ 4 prior LOTs	122	4.8	4.0–6.3	167	3.9	3.2–4.7
Median OS						
All patients	396	38.9	27.0–49.3	449	16.8	12.9–21.8
1–3 prior LOTs	274	47.1	38.9–64.8	282	23.3	16.8–33.9
≥ 4 prior LOTs	122	18.3	11.9–25.2	167	11.9	8.7–14.2

CI, confidence interval.

Keywords: CD38, relapsed/refractory, Multiple myeloma