Abstract: P913

Title: REAL-LIFE OUTCOMES IN PATIENTS (PTS) WITH BCMA-EXPOSED RELAPSED/REFRACTORY MULTIPLE MYELOMA (RRMM) TREATED WITH STANDARD OF CARE (SOC) IN THE LOCOMMOTION AND MOMMENT STUDIES

Abstract Type: Poster Presentation

Topic: Myeloma and other monoclonal gammopathies - Clinical

Background:

LocoMMotion (NCT04035226) and MoMMent (NCT05160584) are prospective, sequential, noninterventional, multinational studies assessing real-life outcomes of the evolving SOC in pts with RRMM. As the RRMM treatment (tx) landscape is rapidly evolving, pts are exposed to B-cell maturation antigen (BCMA)-targeted txs in later lines of therapy (LOT), including antibody-drug conjugates (ADCs), bispecific antibodies (BsAbs), and chimeric antigen receptor (CAR)-T cell txs. Previously, LocoMMotion and MoMMent reported outcomes of pts with triple-class exposed (TCE) RRMM, serving as the benchmark for comparison for all novel txs in this indication. There are currently no prospective data assessing real-life txs used in clinical practice for BCMA-exposed pts. MoMMent consisted of 2 consecutive periods of enrollment: MoMMent-1 has the same design as LocoMMotion, and MoMMent-2 was designed to enroll an additional cohort of BCMA-exposed pts.

Aims:

Here, we report real-life txs used for BCMA-exposed pts and their outcomes from LocoMMotion (completed; final data) and MoMMent (ongoing; data cut-off, 18 Aug, 2023).

Methods:

This analysis consists of data from BCMA-exposed pts from LocoMMotion (median follow-up [mFU], 31.1 mo [range, 2.3–32.1]; N=248 [13 BCMA exposed] enrolled Aug 2019–Oct 2020) and MoMMent-1 and -2 (mFU, 7.8 mo [range, 0.2–14.7]; N=92 [MoMMent-1, 6 BCMA exposed; MoMMent-2, 38 BCMA exposed] enrolled Nov 2021–Jul 2022 [MoMMent-1] and Jul 2022–Feb 2023 [MoMMent-2]). Both studies have the same inclusion criteria, with most pts enrolled from the same sites. Pts could not participate in both studies. Pts had ≥3 prior LOT (LocoMMotion allowed <3 prior LOT if pts were double-refractory to a proteasome inhibitor and an immunomodulatory drug), were TCE, had measurable and documented progressive disease since their last LOT, and had an Eastern Cooperative Oncology Group (ECOG) performance status (PS) score of 0 or 1 at screening. All pts provided informed consent. The primary endpoint was overall response rate (ORR), evaluated per International Myeloma Working Group criteria by the same response review committee for cross-study consistency. Continuous variables were summarized using descriptive statistics, and ORR was reported with corresponding 95% Clopper-Pearson (exact) CIs. Time-to-event data were summarized by Kaplan-Meier methods.

Results:

The analysis included 57 BCMA-exposed patients with a mFU of 10.0 mo (range, 0.2–32.1). At baseline, median age was 66 y, 70.2% of pts were male, 77.2% had an ECOG PS of ≥1, and median time since diagnosis was 7.3 y (**Fig A**). Pts received a median of 7 prior LOT (range, 3–12), 82.5% were triple-class refractory, and 35.1% were penta-drug refractory. Prior BCMA exposure included only ADCs (38.6%), only BsAbs (33.3%), and only CAR-T (17.5%). Overall, 45 unique txs were used as SOC (28.1% were BCMA-targeted tx), and 64.9% of pts received combinations of ≥3 drugs. ORR was 24.6% (95% CI, 14.1–37.8), with median progression-free survival of 3.0 mo (95% CI, 2.2–3.8; **Fig B**) and median overall survival of 8.9 mo (95% CI, 6.7–14.5; **Fig C**). Overall, 54 (94.7%) pts reported ≥1 any-grade treatment-emergent adverse events (TEAEs) and 38 (66.7%) pts reported ≥1 grade ≥3 TEAE.

Summary/Conclusion:

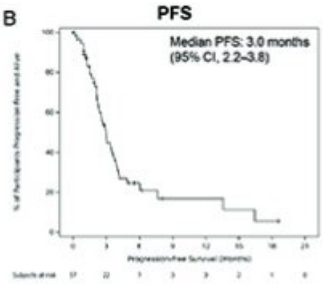
Prospective data from LocoMMotion and MoMMent offer valuable insights into real-world treatments and outcomes in BCMA-exposed pts. These initial results highlight the need for approval of effective new agents after BCMA-targeted tx, including those targeting GPRC5D. These real-world data will complement clinical trials and help inform the sequencing of these novel txs.

Figure: Characteristics and outcomes in BCMA-exposed patients

A

Characteristic	Pooled (N=57)
Male, n (%)	40 (70.2)
Median age, years (range)	66.0 (42–86)
ECOG PS at baseline[a], n (%)	
≥1	44 (77.2)
Years since MM diagnosis, median (range)	7.3 (2.1–22.8)
ISS stage at study entry[b], n (%)	
I	9 (22.0)
II	15 (36.6)
III	17 (41.5)
Missing	16 (39.0)
Presence of EMP, n (%)	7 (12.3)
Number of prior LOT, median (range)	7 (3–12)
Prior exposure, n (%)	
Triple-class[c]	57 (100.0)
Penta-drug[d]	50 (87.7)
GPRC5D-targeted BsAb	6 (10.5)
BCMA-targeted therapy[e]	57 (100.0)
Only ADC	22 (38.6)
Only CAR-T	10 (17.5)
Only BsAb	19 (33.3)
ADC and CAR-T	4 (7.0)
BsAb and CAR-T	1 (1.8)
ADC and BsAb	1 (1.8)
ADC, CAR-T, and BsAb	0
Refractory status, n (%)	
Triple-class[c]	47 (82.5)
Penta-drug[d]	20 (35.1)
BCMA-BsAb	21 (36.8)
BCMA-ADC	22 (38.6)
Pomalidomide and Carfilzomib	36 (63.2)
SOC treatment regimens, n (%)	
PI	22 (38.6)
IMiD	21 (36.8)
Anti-CD38 mAb	10 (17.5)
Alkylating agents	25 (43.9)
BCMA-targeted therapy[e]	16 (28.1)

B



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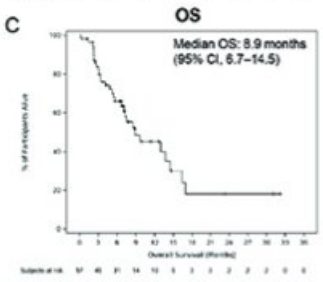

[a]One patient had ECOG 2 at baseline. All patients had ECOG 0-1 at screening. [b]n=41. [c]≥1 each of PI + IMiD + anti-CD38 antibody. [d]≥2 of PI + IMiD + ≥1 anti-CD38 antibody. [e]Includes 10 patients treated with Teclistamab, 4 patients treated with Idecabtagene Vicleucel, and 2 patients treated with Belantamab mafodotin.
ADC, antibody drug conjugate; BCMA, B-cell maturation antigen; BsAb, bispecific antibody; CAR, chimeric antigen receptor; ECOG PS, Eastern Cooperative Oncology Group performance status; EMP, extramedullary plasmacytomas; GPRC5D, G protein-coupled receptor family C group 5 member D; IMiD, immunomodulatory drug; ISS, International Staging System; LOT, lines of therapy; mAb, monoclonal antibody; MM, multiple myeloma; PI, proteasome inhibitor.

Keywords: Real world data, relapsed/refractory, Multiple myeloma, B-cell maturation antigen