Does Prior Belantamab Mafoditin Exposure Impact Overall Survival Post BCMA Therapy in Patients With Relapsed/Refractory Multiple Myeloma?—A Propensity Matched Multicenter Retrospective Analysis Using the TrinetX Database

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Introduction

- Belantamab mafodotin: BCMA ADC → **approved ➔ withdrawn** (no PFS benefit)
- DREAMM-8: PFS benefit in combination
- Most BCMA trials **exclude prior belantamab** → OS impact unknown

Aim

- **Aim:** Evaluate OS after BCMA therapy in RRMM **with vs without** prior belantamab

Methods

- Multicenter **TrinetX** retrospective study
- Adults with RRMM receiving:
  - **CAR-T:** cilta-cel, ide-cel
  - **Bispecifics:** teclistamab, elranatamab
- Groups: **Belantamab prior** vs **No belantamab**
- **1:1 propensity matched** → OS analysis

Baseline feature	BCMA therapy without Belantamab exposure (n=2204)	BCMA therapy with Belantamab exposure (n=61)	p-value
Mean age (in years) (SD)	70.9 (±10.9)	68.5 (±9.7)	0.07
Gender			
Females	965 (44.6%)	35 (59%)	0.109
Males	1239 (55.4%)	25(41%)	0.109
Race			
Whites	1476 (67%)	48 (82%)	0.01
African/American	433 (19%)	<10	0.77
Comorbidities			
Type 2 DM	576 (25%)	18 (29%)	0.549
HTN	1435 (65%)	49 (80%)	0.016
Obesity	533 (22%)	19 (32%)	0.089
CAD	570 (25%)	30 (49.2%)	<0.0001
CHF	461 (19%)	25 (45%)	<0.0001
Chronic LRI	448 (24%)	17 (30%)	0.268
CVA	224 (12%)	16 (29%)	0.0002
CKD	706 (29%)	26 (32%)	0.623
Extramedullary myeloma	140 (6.4%)	10 (16.4%)	0.0003%
Daratumumab exposed	950 (43%)	52 (85%)	<0.0001
IMIDs exposed			
Lenalidomide	1276 (58%)	41 (67%)	0.291
Pomalidomide	1130 (51%)	52 (84%)	<0.0001
PIs exposed			
Bortezomib	929 (42%)	41 (67%)	<0.0001
Ixazomib	278 (22%)	26 (39%)	<0.0001
History of ASTCT	1298 (59%)	41 (67%)	0.262

Results

- **N=2,265** | Age: 70.9 yrs | 55% male | 67% White
- Prior belantamab: **2.7% (n=61)**
- Matched cohort: **58 vs 58**
- **mOS:**
  - Belantamab: **27.4 mo**
  - No belantamab: **Not reached** | *P=0.483*
- Timing (<6 mo vs >6 mo): **No difference** (22.7 vs 28.1 mo, *P=0.330*)
- Time to CAR-T/TCE: **2038 days** (belantamab) vs **1503 days** (no belantamab)

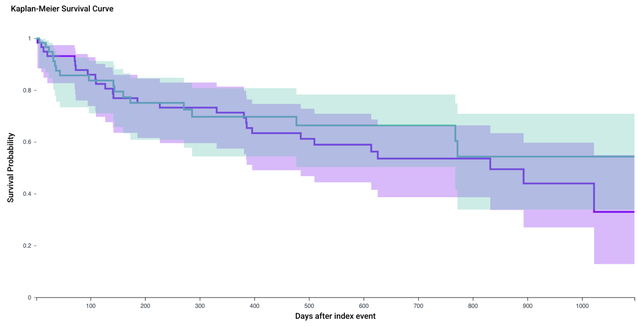
Propensity matched analysis:

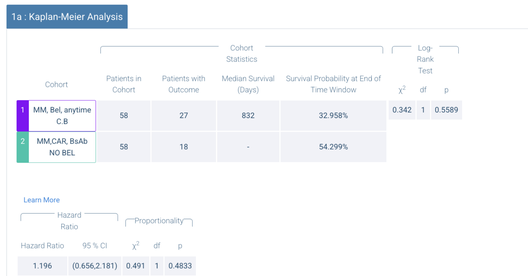
Baseline characteristic	BCMA without Belantamab (n=58)	BCMA with Belantamab (n=58)	p-value
Median follow-up (months)(IQR)	15.8 (±14.4)	13.1 (±11.9)	
Median OS (months)	NA	27.4	0.483
3-year survival probability	54.3%	33%	0.559

Subgroup analysis based on timing of Belantamab exposure:

	BCMA within 6 months of Belantamab exposure (n=29)	BCMA after 6 months of Belantamab exposure (n=22)	p-value
Median OS	22.7 months	28.1 months	0.330

Kaplan-Meier survival curve for Belantamab-exposed vs non-exposed group





Discussion

No significant OS difference with prior belantamab in RRMM receiving subsequent BCMA therapy

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