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Impact of previous BCMA exposure: Evidence From Practice Outside of Clinical Trials to Inform Talquetamab Sequencing.

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Conclusions

- Our study on talquetamab therapy highlights noteworthy response rates and survival among both BCMA-exposed and naïve groups.
- No significant PFS or OS differences were seen among groups, though baseline prognostic variations may limit comparisons.
- These findings underscore the potential of talquetamab in both BCMA-naïve and exposed patients,, even though the majority were treated with BCMA ADC.
- Robust evaluation of BCMA use after talquetamab was not feasible given limited patient numbers in this cohort.
- While the retrospective nature of this study imposes some limitations, these insights may be valuable for improving clinical decision-making.

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Introduction

- Targeted immunotherapies represent remarkable advancements in the treatment of multiple myeloma (MM), particularly through the rise of chimeric antigen receptor T cells (CAR T)[1] and bispecific T-cell engagers (TCEs)[2].
- GPRC5D (G-protein–coupled receptor class C group 5 member D) and BCMA (B-cell maturation antigen) have become key targets for various therapies, including CAR T-cell treatments, bispecific antibodies, and antibody-drug conjugates (ADC)[3].
- Recently approved therapies targeting BCMA[4,5,6] and GPRC5D[7] have demonstrated extraordinary results in patients with triple-class exposure, who would otherwise face significantly poor overall survival rates. However, there is still limited data available on optimal sequencing BCMA and GPRC5D agents to support informed decision-making.
- Talquetamab (TAL), a pioneering bispecific antibody targeting GPRC5D, received approval in Europe in August 2023[8]. Prior to this, in November 2022, TAL became available to adult patients in Spain through pre-approval access programs (PAA) following program eligibility based on specified PAA treatment guidelines.

Aim

- This poster aims to characterize effectiveness outcomes among TCE RRMM pts receiving Tal monotherapy, by prior BCMA exposure status.

Methods

- This is an ongoing retrospective, non-interventional, observational study conducted currently at 68 Spanish sites at data cut-off. The analysis includes data collected during the chart review period (September 2024 to May 2025).
- Adult (≥18 years) patients, diagnosed with TCE RRMM, who had initiated treatment with TAL monotherapy (at least one dose) outside clinical trials through PAA in Spain and had received the first dose of TAL in monotherapy at least 30 days before study initiation were included in the study after, for living patients, signing an Informed Consent Form (ICF). Patients were classified into two subgroups for the analysis: BCMA-exposed and BCMA-naïve.
- Quantitative variables are described using measures of central tendency and dispersion (mean, standard deviation [SD], median, range [min-max]). Qualitative variables are described using absolute and relative frequencies (N, %).

Results

Clinical and demographic characteristics

- At database cut-off, a total of 163 patients were evaluable for this analysis. Of these, 54/163 (n/N) (33.1%) were BCMA-exposed (at any previous line), and 109/163 (66.9%) were BCMA-naïve.
- The BCMA-exposed and BCMA-naïve patients were heavily pre-treated with a median of 5 and 3 prior lines of therapy, respectively. All patients BCMA-exposed were triple-exposed, while 98/109 (89.9%) were in the BCMA-naïve group (**Table 1**). All characteristics showed comparable distributions, with the exception of extramedullary disease (Fisher exact test p-value: 0.016), time from diagnosis (U Mann-Whitney test p-value: 0.001), and prior lines of therapy (U Mann-Whitney test p-value: <0.001).
- Among BCMA-exposed patients assessed for efficacy, 5 received CAR T-cell therapy, 39 received antibody-drug conjugate (ADC) treatment, and 6 received bispecific antibody (BsA) therapy.
- Of the 52 patients with anti-BCMA exposure with available data, prior treatment with anti-BCMA therapy immediately before talquetamab was documented for 39 patients. For these patients, the median time (months) from the start of anti-BCMA treatment to the start date to talquetamab was 4.4 (95%CI: 3.15-5.13).
- Talquetamab was given every two weeks (Q2W) to most patients (47/52 BCMA-naïve and 82/95 BCMA-exposed); the remainder received weekly dosing per SmPC guidelines.

Table 1. Patients' demographic and clinical characteristics at talquetamab initiation.

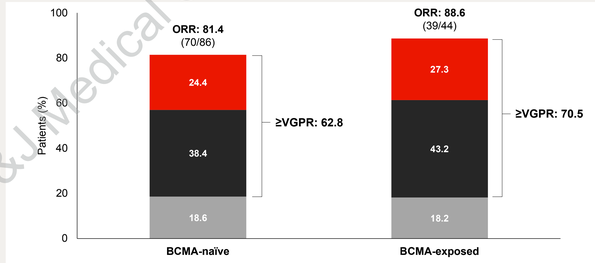
Characteristics	BCMA-naïve (N=109)[a]	BCMA-exposed (N=54)[a]
Age (years), median (range)	67 (42.0-83.0)*	66 (10.0-84.0)
65-75 years, n/N (%)	45/99 (45.5)	18 (33.3)
> 75 years, n/N (%)	12/99 (12.1)	11 (20.4)
Female, n/N (%)	53/100 (53)	25 (46.3)
ECOG ≥1, n/N (%)	66/98 (67.3)	31 (57.4)
ISS Stage, n/N (%)		
I	23/98 (23.5)	14 (26)
II or III	75/98 (76.5)	40 (74)
High risk cytogenetics[b], n/N (%)	11/37 (29.7)	4/15 (26.7)
Extramedullary plasmacytoma[c], n/N (%)	19/48 (39.6)	3/26 (11.5)
Patients ineligible for MonumenTAL-1[d], n/N (%)	42/77 (54.5)	22/47 (46.8)
Years since diagnosis, median (range)	4.5 (0.7-23.2)~	7.0 (1.2-25.3)§
Previous lines of therapy, median (range)	3.0 (1.0-8.0)ǂ	5.0 (2.0-9.0)
Triple-class exposed, n/N (%)	98 (89.9)	54 (100)
Penta-class exposed, n/N (%)	65 (59.6)	38 (70.4)
Triple refractory, n/N (%)	76 (69.7)	43 (79.6)
Penta refractory, n/N (%)	28 (25.7)	12 (22.2)
Autologous SCT, n/N (%)	69 (63.3)	41 (75.9)

[a]Data available added as denominators (n/N) if not corresponding to the evaluable cohort. [b]"del(17p)", "t(4;14)" or "t(14;16)".[c]Extramedullary disease was defined exclusively by the presence of extramedullary soft tissue lesions. [d]Main reasons for ineligibility were non-measurable disease, creatinine clearance <40 mL/min and hemoglobin level <8g/dL. ECOG: Eastern Cooperative Oncology Group; ISS: International Staging System; SCT: stem cell transplant; del: deletion; t: translocation; IQR: interquartile range. *N=89; ~N=93; §N=51; ǂN=97.

Efficacy analysis

- The overall response rates (ORR) and complete response rates (CR or better) were 81.4% (70/86) and 24.4% (21/86) for BCMA-naïve patients, and 88.6% (39/44) and 27.3% (12/44) for BCMA-exposed patients (**Figure 1**).
  - » ORR was 100% (80% ≥CR) for prior CART, 72.7% (18.2% ≥CR, 6/33) for ADC, and 66.7% (33% ≥CR, 2/6) for BsA.
- For the BCMA-exposed group, median times to first and best response were 1.6 months (range: 0.3–18.1) and 4.3 months (0.6–18.3), respectively. In the BCMA-naïve group, these were 1.7 months (0.3–10.6) and 2.7 months (0.4–20.5).

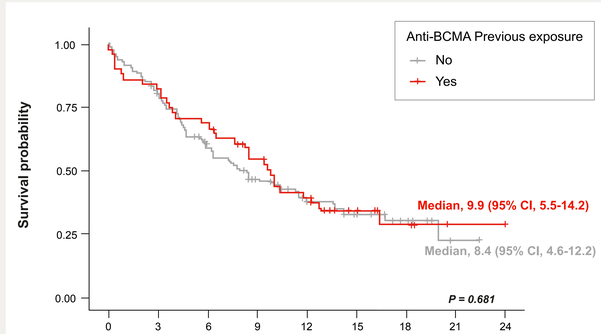
Figure 1. ORR and overall best response rates in BCMA-naïve and exposed patients.



Due to rounding and unavailable data, individual response rates may not precisely add up to the total.

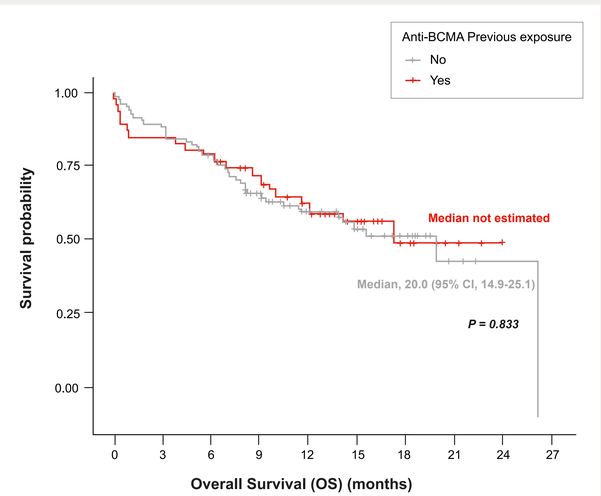
- With a median follow-up (FU) of 12.6 months (range 0.1-24.0) for the BCMA-exposed group and 10.3 months (range 0.1-26.2) for the BCMA naïve group, no statistically significant differences were found in progression-free survival (PFS) or overall survival (OS).
- The median PFS was 9.9 months (95% CI: 5.5-14.2) for the BCMA-exposed group and 8.4 months (95% CI: 4.6-12.2) for the BCMA naïve group (**Figure 2**).

Figure 2. PFS (months) of talquetamab treatment in BCMA-naïve patients (N=94) and BCMA-exposed (N=52).



- The median overall survival (OS) was not estimable for the BCMA-exposed group and was 20 months (95% CI: 14.9-25.1) for the BCMA-naïve group (**Figure 3**).

Figure 3. OS (months) of talquetamab treatment in BCMA-naïve patients (N=94) and BCMA-exposed (N=52).



- Effectiveness outcomes observed by type of prior BCMA exposure (prior CAR-T mFU 15.1 months [95%CI:4.4-24]; prior ADC 13.1 months [95%CI:0.1-24]; prior BsAb 7 months [95% CI:0.4-15.1]) were as follows:
  - » PFS after prior CART was not estimable; following ADC, median was 10 months (95% CI: 8.5–11.5), and after BsA, 3.8 months (2.07–5.55).
  - » Median OS was not estimable (NE) after prior CART or ADC, and 7.03 months (6.3–7.8) after prior BsA.
- Time to next treatment (TTNT) was only recorded for patients who received a BCMA agent after talquetamab. TTNT was defined as the interval from the first dose of talquetamab to the initiation of the subsequent treatment.
  - » Six patients in the BCMA-exposed group received a BCMA agent after talquetamab progression, with a median TTNT of 10.3 months (95% CI: 6.9–13.8).
  - » Following progression on talquetamab, 18 patients in the BCMA-naïve cohort received a BCMA-targeted agent. The median TTNT was 10.3 months (95% CI 5.6-15).

References: 1. Exp Hematol Oncol. 2024;13:105; 2. Blood Lymphat Cancer. 2025;15:1–10; 3. Nat Rev Clin Oncol. 2025;22(9):680–700; 4.N Engl J Med. 2022;387(6):495–505; 5. Nat Med. 2023;29(9):2259–67; 6. J Clin Oncol. 2024;42(22):2702–12; 7. Lancet Haematol. 2025;12(4):e269–81; 8. EMA. Talquetamab Summary of Product Characteristics. Available at: www.ema.europa.eu.

Multiple myeloma