

BCMA-targeting T-cell redirecting
Bispecific antibody therapy post GPRC5D-
directed bispecific antibody
in relapsed or refractory Myeloma.
(IFM 2024-13 BCMA postGPRC5D)



INTRODUCTION

Multiple myeloma (MM) presents a significant challenge due to frequent relapses, especially in triple-class refractory patients. T-cell redirecting bispecific antibodies (BsAbs) have revolutionized the treatment landscape. BCMA- and GPRC5D-targeting BsAbs show comparable efficacy in heavily pretreated MM patients but have distinct toxicity profiles. BCMA-targeting BsAbs are often administrated first, so there’s limited data on their effectiveness following GPRC5D-targeting BsAb therapy..

AIM

To evaluate the efficacy and toxicity of BCMA-targeting BsAbs post-GPRC5D-targeting BsAbs in relapsed/refractory (RR) MM patients.

METHOD

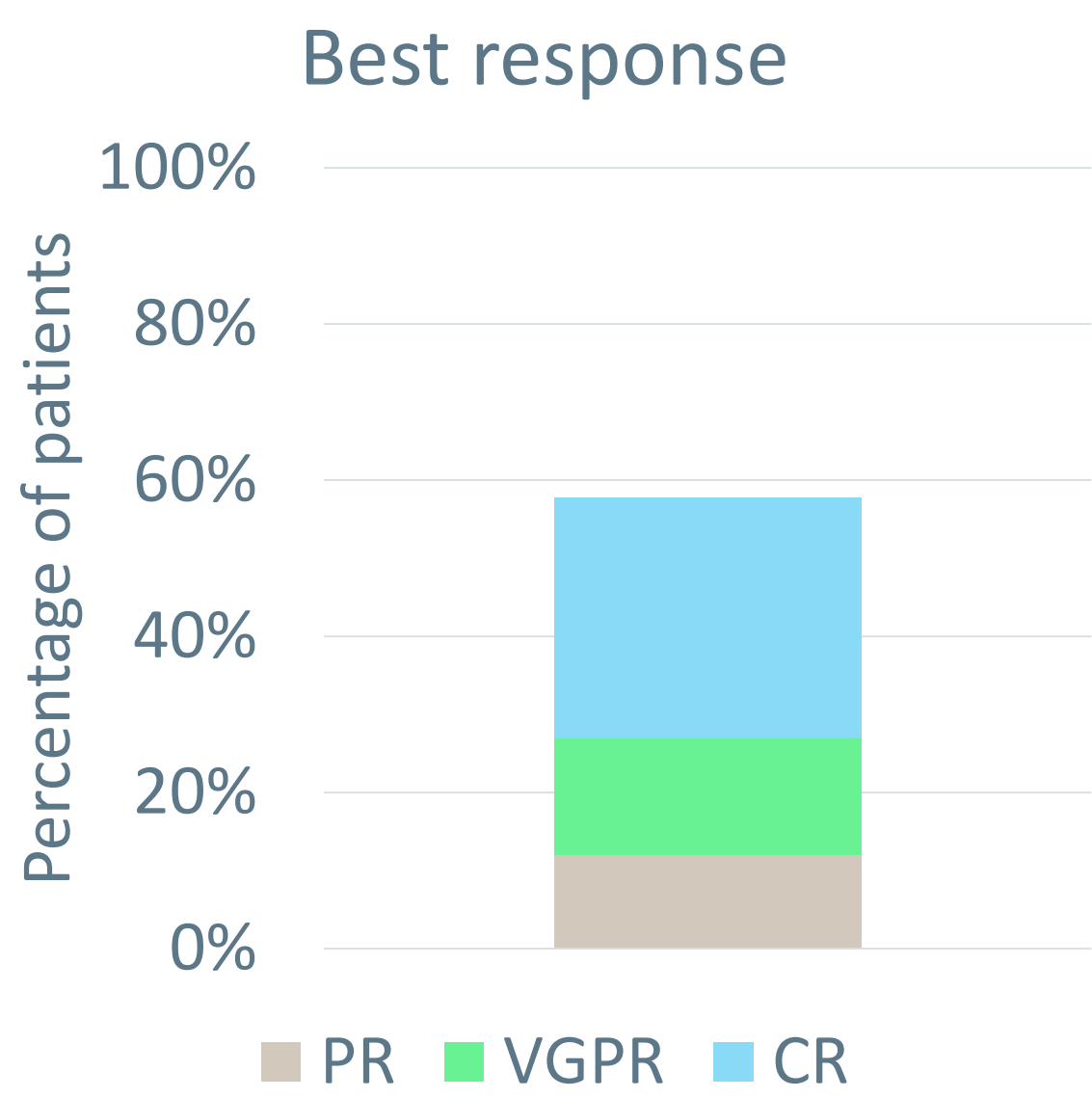
This retrospective study, conducted by the Intergroupe Francophone du Myelome (IFM) is identified as IFM 2024-13 BCMA post-GPRC5D. Data were collected from 8 centers (7 in France and one in Belgium).

Patients (pts) with RR MM who received BCMA-targeting BsAbs (Teclistamab or Elranatamab) under anearly access program, following GPRC5D-targeting BsAb therapy, were included. Patients had previously received Talquetamab or Forimtamig in the MonumenTAL or Grace trials. For this study, no data regarding efficacy or safety during trials period of treatment were collected; data collected were only before inclusion and after pts went out of the trial for progression..

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PATIENTS BASELINE CHARACTERISTICS	N=26
MEDIAN age, years (range)	72 (53-80)
FEMALE, n (%)	15 (58%)
IgG Subtype, n (%)	13 (50%)
EMD, n (%)	8 (31%)
High Cytogenetic risk, n (%)	8 (31%)
Median Prior LOT, n (range)	7 (3-15)
IMiDs refractory, n (%)	24 (92%)
PI refractory, n (%)	23 (88%)
Anti-CD38 antibody refractory, n (%)	22 (85%)
Triple class refractory, n (%)	21 (81%)
Prior BCMA-directed therapy, n (%)	10 (38%), CAR T n = 4, Belantamab n = 6
Prior GPRC5 D : TALQUETAMAB, n (%)	15 (58%)
Prior GPRC5 D : FORIMTAMIG, n (%)	11 (42%)
TECLISTAMAB, n (%)	20 (77%)
ELRANATAMAB, n (%)	6 (23%)



Response rate

- ORR= 58%
- CR = 31%
- VGPR = 15%
- PR = 12%
- SD= 35%
- Primary progressive = 8%

Immune Toxicity :

- Cytokine Release Syndrome (CRS) : n = 13 (50%)
- No CRS ≥ G3
- No ICANS
- CRS treatment :
 - Tocilizumab: 3 pts (23%)
 - Corticoids: 2 pts (15%)

Treatment Discontinuation due to Toxicity : 4 pts (15%)

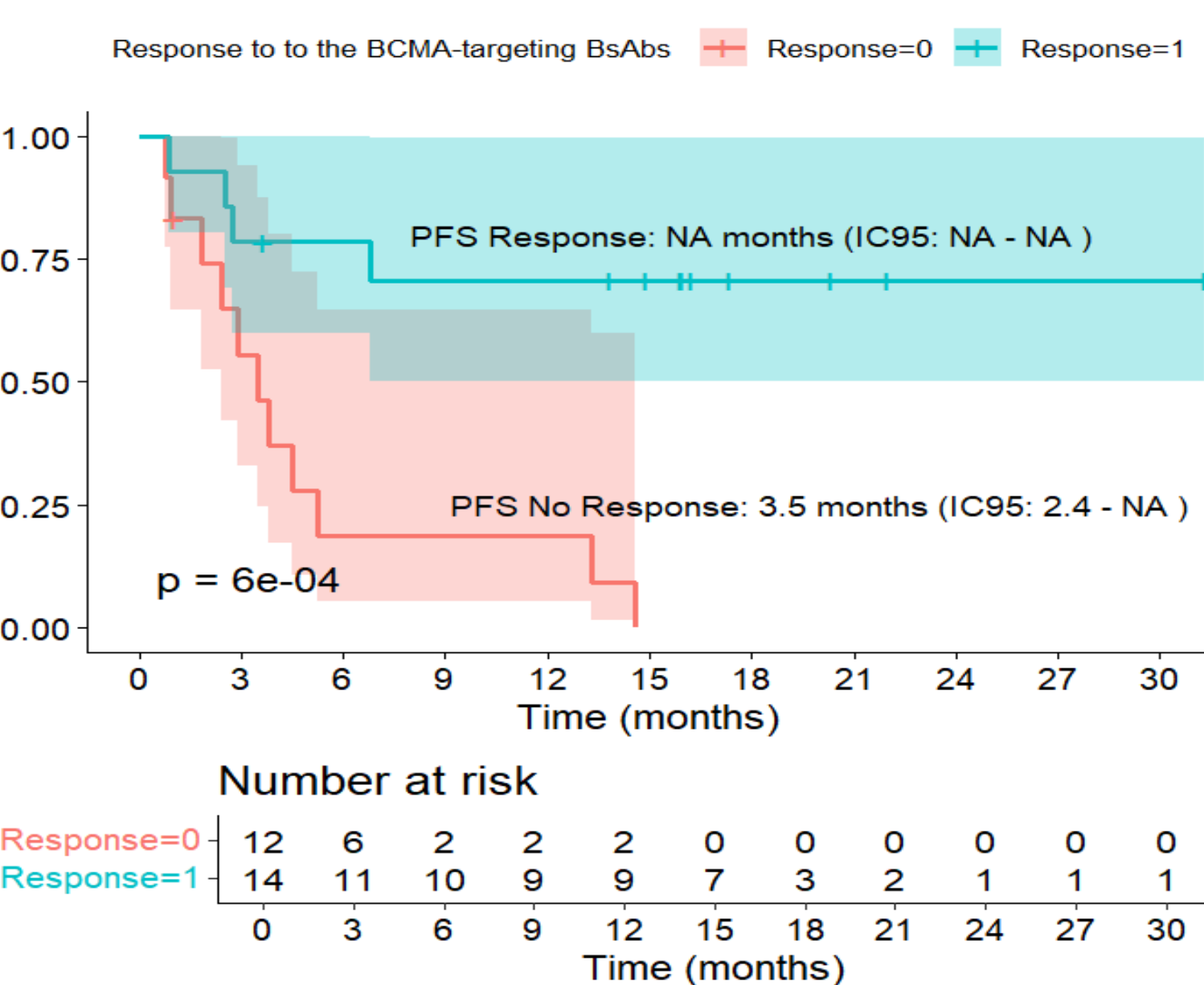
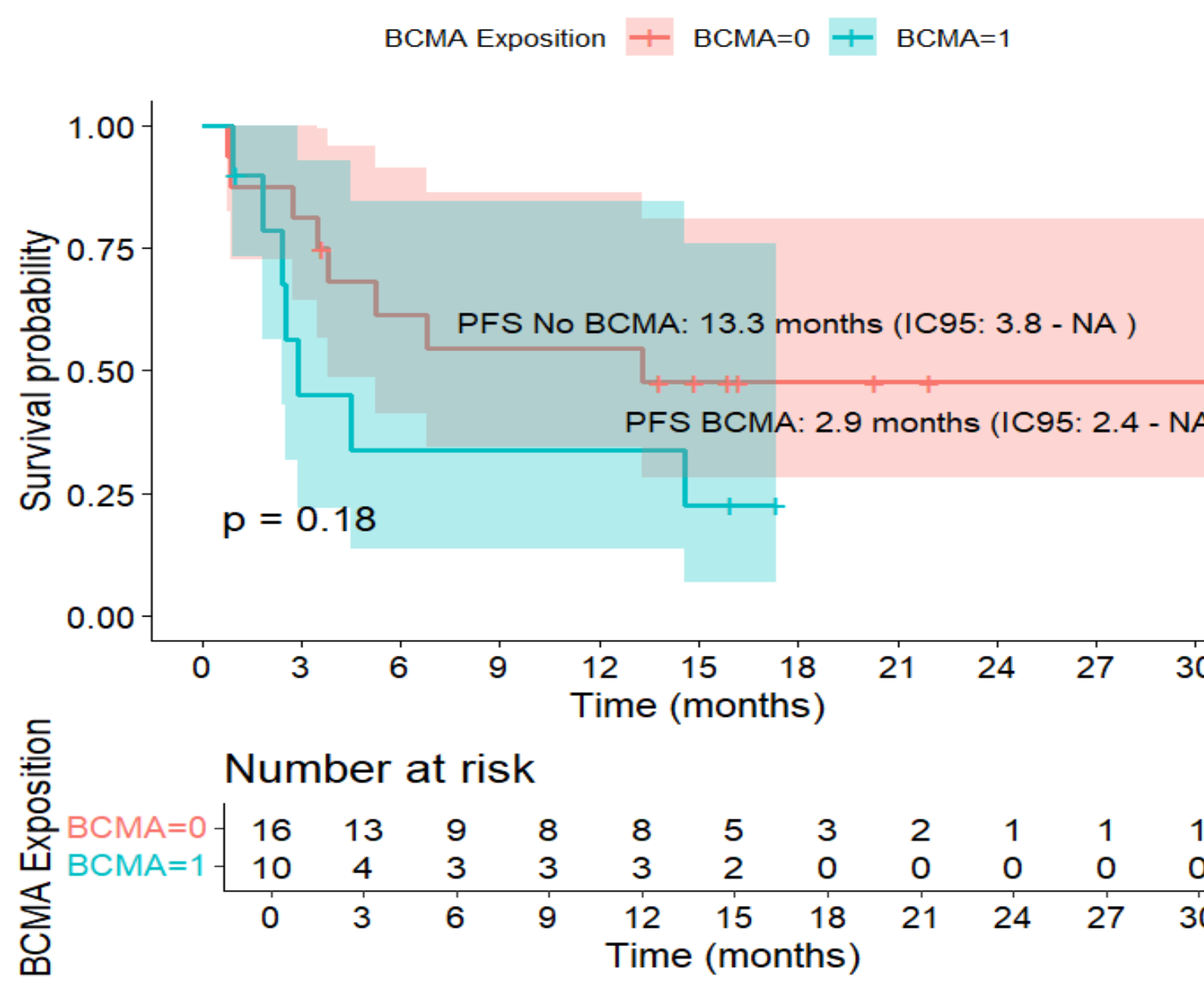
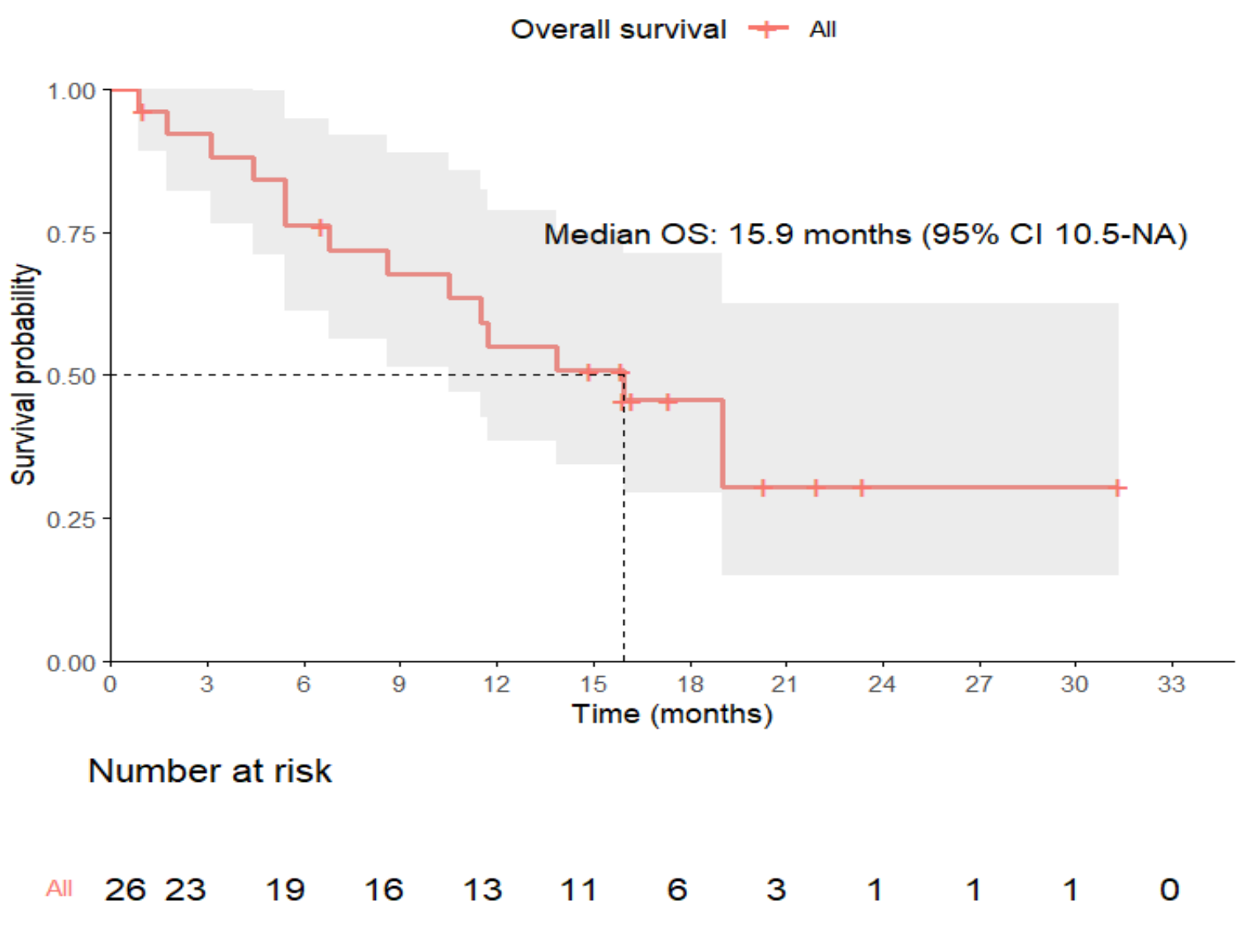
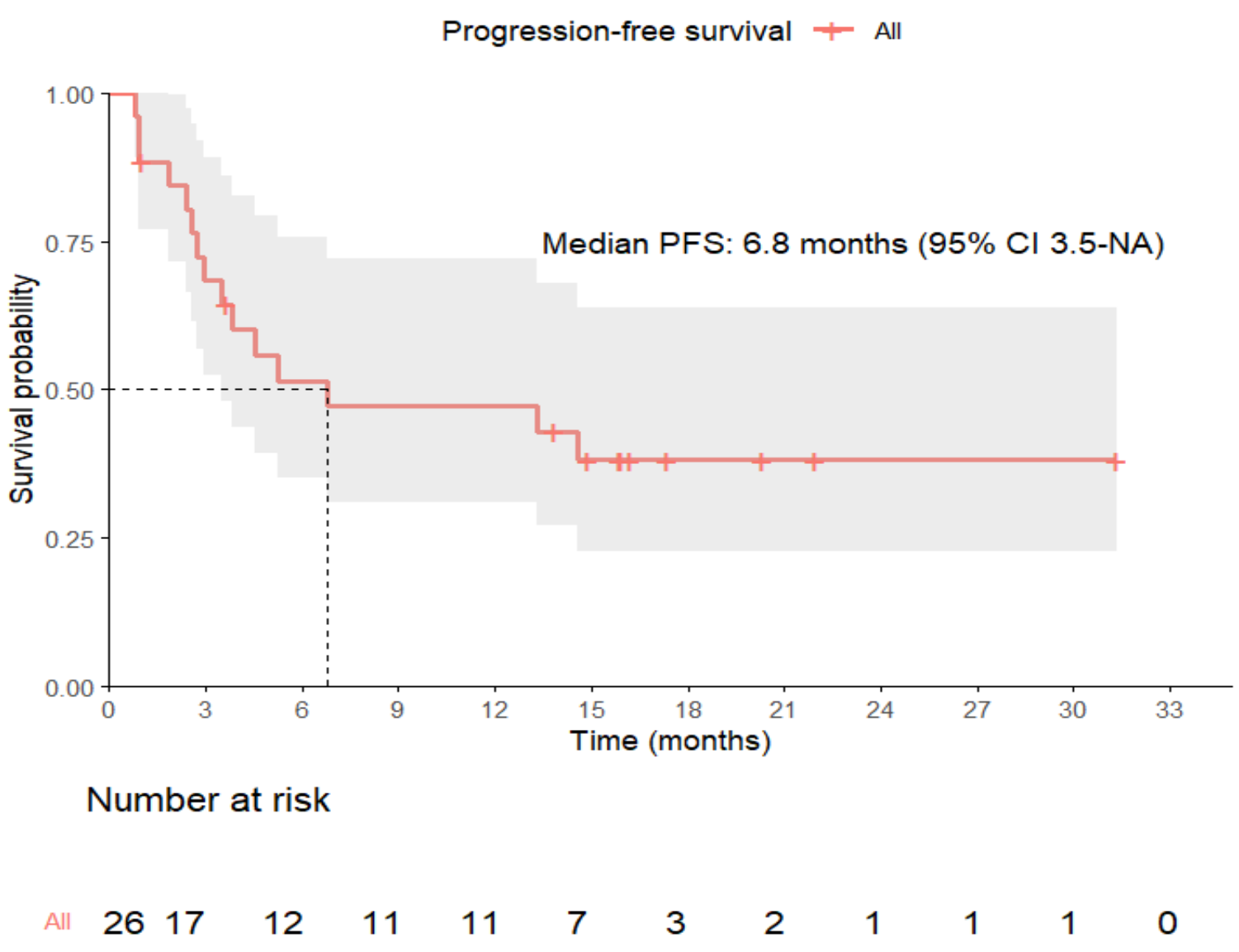
Dose Spacing : 12 pts (46%)

Infections :

- Infections ≥ G3: 10 (38%)
- Infections G5: 3 (11,5%)
- IVIG Supplementation : 17pts (65%)

Opportunistic Infections :

- CMV Pneumonia
- Multifocal progressive leukoencephalitis



The median follow-up was 20 months. In patients with Extra Medullary Disease (EMD) (8 pts versus 18 pts), PFS at 12 months slightly decreased, with values of 37.5% versus 51.7%
In patients with High Risk (HR) cytogenetics, (8 pts versus 18 pts), PFS at 12 months also slightly decreased, with similar values of 37.5% versus 52.4%..

CONCLUSIONS

Our study suggests that the use of BCMA-targeting BsAbs (Teclistamab or Elranatamab) following progression onGPRC5D-targeting BsAbs is feasible in heavily pretreated MM patients.

No additional toxicities were observed. For responding patients, PFS was prolonged and for pts naïve to BCMA-directed therapy (CAR T cell or Belantamab).

The efficacy was similar to what is typically expected. Therefore, sequencing BsAbs appears to be a viable strategy in MM treatment.

REFERENCES

B-cell maturation antigen-based therapies post-talquetamab in relapsed or refractory multiple myeloma. Shrestha A, et al. EJHaem. 2024 Apr 16;5(3):554-559.

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