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Clinical Hematology

Daratumumab in the Treatment of Relapsed/Refractory Multiple Myeloma: Real-World Experience from the Clinical Hematology Department of Avicenne Military Hospital, Marrakech

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Abstract **Original Research Article**

Multiple myeloma (MM) is a malignant hematologic disorder characterized by clonal proliferation of tumor plasma cells. Treatment of MM has evolved over recent decades, improving progression-free survival (PFS) and overall survival (OS). Daratumumab has demonstrated superior efficacy when combined with other agents, with an acceptable safety profile. This retrospective study evaluates the efficacy and safety of daratumumab in 8 patients with relapsed/refractory MM. Results showed a treatment response in 75% of patients, with a 12-month progression-free survival of 75% and a 12-month overall survival of 87.5%. Daratumumab is an effective and well-tolerated treatment for patients with relapsed/refractory MM.

Keywords: Multiple Myeloma, Daratumumab, Relapsed/Refractory, Real-World Study, Combination Therapy.

INTRODUCTION

Multiple myeloma is a malignant plasma cell disorder characterized by clonal proliferation within the bone marrow. Over the past decades, treatment strategies have evolved substantially, leading to significant improvements in progression-free survival and overall survival. The introduction of monoclonal antibodies, particularly daratumumab, has further transformed the therapeutic landscape of MM.

OBJECTIVES

The primary objective of this study was to evaluate the efficacy and safety of daratumumab-based therapy in patients with relapsed or refractory multiple myeloma treated in real-world clinical practice.

MATERIALS ET METHODS

This is a retrospective descriptive study conducted over 5 years in the Clinical Hematology Department of HMA, including patients treated with daratumumab in combination with other agents (proteasome inhibitors, IMiDs, corticosteroids).

RESULTS

Among twenty-nine (29) MM patients collected, 8 had relapsed/refractory MM treated with daratumumab. The median age at diagnosis was 56.5 years (range 48–71), with female predominance (sex ratio 0.875). Three-quarters of patients had at least one comorbidity (37.5% hypertension, 25% diabetes, 25% cholecystectomy). Almost all patients presented bone pain at diagnosis. According to the ISS score: 50% were stage I, 25% stage II, 25% stage III.

First-Line Treatment:

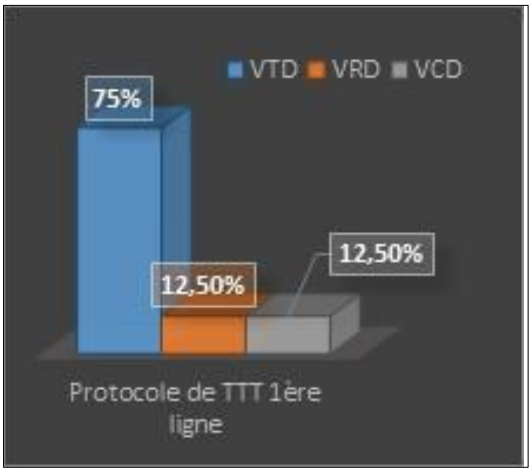
75% received VTD (bortezomib, thalidomide, dexamethasone), 12.5% received VRD (bortezomib, lenalidomide, dexamethasone) et 12.5% received VCD (bortezomib, cyclophosphamide, dexamethasone). First-line response: 12% complete response (CR), 25% very good partial response (VGPR), 25% partial response (PR), 25% minimal response (MR) and 12.5% stable disease (SD). Relapse time ranged from 3 to 72 months. One patient was primarily refractory.

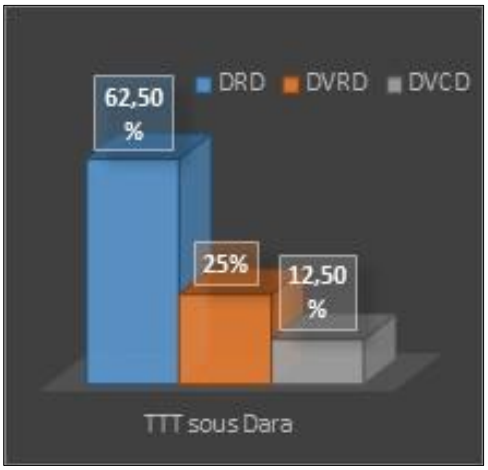
Daratumumab Was Used:

In second line in 75% of patients and in third line in 25%. Combination regimens: 62.5% DRD

(daratumumab, lenalidomide, dexamethasone), 25% DVRD (daratumumab, bortezomib, lenalidomide, dexamethasone), 12.5% DVCD (daratumumab, bortezomib, cyclophosphamide, dexamethasone).

Daratumumab showed better efficacy when used in combination, with moderate and manageable toxicity (mainly hematologic and infectious). After a median follow-up of 6 months: 75% had at least a partial response After 12 months: 75% had no progression or relapse, 87.5% were alive and No serious adverse effects attributable to daratumumab were observed.





Figures 1 and 2: Distribution of treatment protocols used in first-line and second-line therapy

DISCUSSIONS

Daratumumab has significantly improved response rates in MM, particularly when combined with proteasome inhibitors and immunomodulatory agents. These benefits translate into prolonged progression-free and overall survival across patient subgroups, regardless of transplant eligibility or disease risk status [1-3].

Our real-world findings are consistent with published clinical trial data, demonstrating high overall response rates in second- and third-line settings [6]. (Tableau 1). Additionally, daratumumab showed a favorable safety profile, including in fragile patients [4]. (Figures 3 et 4)

However, limited access to this therapy remains a major challenge in resource-constrained settings, restricting its widespread implementation, particularly in first-line treatment [5].

Table 1: Percentage distribution of responses after first-line therapy and after treatment with daratumumab-based combination regimens

	Treatments	
Responses to treatment	**TTT of first line**	**TTT with Daratumumab**
RC	12,5%	50%
VGPR	25%	37,5%
RP	25%	12;5%
RM	25%	0%
SD	12,5%	0%

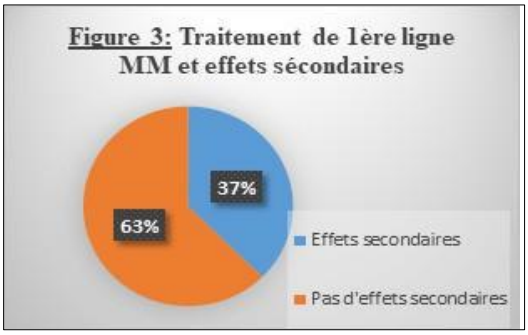


Fig. 3

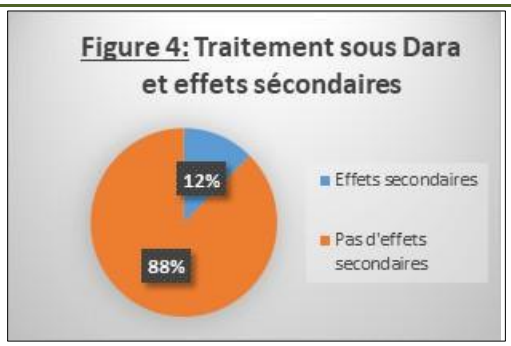


Fig.4

CONCLUSION

Daratumumab-based combination therapy demonstrates high efficacy and good tolerability in relapsed/refractory multiple myeloma. Expanding access and earlier use of this therapy could further improve patient outcomes.

REFERENCES

1. Sonneveld P, Dimopoulos MA, Boccadoro M, et al. Daratumumab, Bortezomib, Lenalidomide, and Dexamethasone for Multiple Myeloma. N Engl J Med 2024 ;390 :301-313
2. Bahlis NJ, Dimopoulos MA, White DJ. Daratumumab plus lenalidomide and dexamethasone in relapsed/refractory multiple myeloma: extended follow-up of POLLUX, a randomized, open-label, phase 3 study. Leukemia. 2020 ;34 :1875-84.
3. Palumbo A, Chanan-Khan A, Weisel K, et al. Daratumumab, Bortezomib, and Dexamethasone for Multiple Myeloma. N Engl J Med 2016 ;375 :754-766
4. Horigome Y, Suzuki K, Suzuki T. Daratumumab Treatment for "Truly Frail" Elderly Myeloma Patients. Life (Basel). 2024 Mar 15 ;14(3) :389.
5. Dimopoulos MA, Terpos E, Boccadoro M, et al. EHA–EMN Evidence-Based Guidelines for diagnosis, treatment and follow-up of patients with multiple myeloma. Nat Rev Clin Oncol 22, 680–700 (2025)
6. « Evaluation de l'utilisation du Dara en association avec lénalidomide et la dexaméthasone dans un centre de lutte contre le cancer 5ans après sa mise sur le marché : étude en vie réelle » par Anne Delépine, Isabelle Ferry, Laurence Escalup *et al.* Page 79 à 82, le journal pharmacie clinique 2023/2 vol42