CLINICAL LANDSCAPE AND PROGNOSTIC IMPACT OF EXTRAMEDULLARY DISEASE IN MULTIPLE MYELOMA: A LARGE SINGLE-CENTER RETROSPECTIVE ANALYSIS

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INTRODUCTION

Extramedullary disease (EMD) in multiple myeloma (MM) — comprising paramedullary osseous extension (PMD) or true extramedullary soft-tissue involvement (EMD-S) — represents a biologically aggressive variant with a traditionally poor prognosis.

Data regarding its impact in real-world, resource-limited settings remain sparse. We evaluated the prevalence, clinicopathologic features, and outcomes of EMD within a large single-center Tunisian cohort.

AIM

To determine the prevalence and clinical subtype distribution of extramedullary disease (EMD) in a large Tunisian multiple myeloma cohort, and to compare baseline characteristics, staging, treatment response, and survival outcomes between patients with and without EMD.

METHOD

Among 140 patients with newly diagnosed MM, the presence and subtype of EMD were systematically recorded.

- Baseline features, ISS/R-ISS staging, and FISH cytogenetics were compared according to EMD status.
- Induction response assessed per IMWG 2014 criteria; ASCT rates recorded.
- Overall survival (OS) analyzed according to EMD status.

CONCLUSIONS

EMD prevalence in this North African cohort is notably high (29%), likely reflecting delayed referral patterns.

Induction response and ASCT feasibility were comparable with those of patients without EMD.

The distinct clinical profile and high prevalence of EMD underscore the need for systematic baseline imaging (MRI or PET/CT) and dedicated prospective regional registries.

RESULTS

EMD was identified in 40/140 patients (29%) at diagnosis. Among EMD cases, PMD predominated (55%), while 35% presented with EMD-S; bone and soft-tissue plasmacytomas were found in 24% and 3% of the global cohort, respectively.

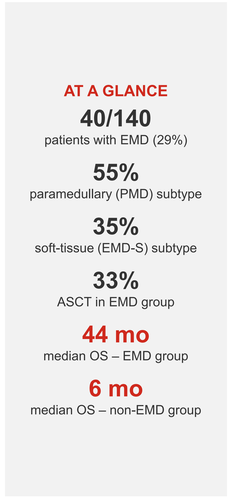
Involved sites included complex vertebroparaspinal, pelvic, and maxillofacial masses, as well as rare visceral/retroperitoneal masses.

Patients with EMD were younger (median 57 vs 59 years) and had higher rates of bone involvement (98% vs 75%) but lower rates of anemia (38% vs 71%) and renal impairment (10% vs 41%), reflecting a predominantly osseous disease burden.

ISS 3 (42% vs 57%) and R-ISS 3 (35% vs 45%) were lower in the EMD group, suggesting standard staging may underestimate risk in this subset. High-risk cytogenetics were comparable (22% vs 26%), though high-risk clinical classification was more frequent with EMD (80% vs 72%).

Post-induction, rates of ≥VGPR (58% vs 54%), CR (22% vs 21%), and primary refractory disease (16% vs 17%) were similar between groups. ASCT was performed in 33% of EMD patients versus 26% of non-EMD patients; relapse occurred in 53% versus 61%.

Median OS was 44 months for EMD versus 6 months for non-EMD — a paradox likely driven by survival data availability bias in this retrospective study.



EMD prevalence, subtypes, and survival at a glance.

Characteristic	EMD (n=40)	Non-EMD (n=100)	Characteristic	EMD vs Non-EMD
Median age (years)	57	59	≥VGPR post-induction	58% vs 54%
Bone involvement	98%	75%	CR post-induction	22% vs 21%
Anemia	38%	71%	Primary refractory	16% vs 17%
Renal impairment	10%	41%	ASCT performed	33% vs 26%
ISS stage 3	42%	57%	Relapse	53% vs 61%
R-ISS stage 3	35%	45%	Median OS (months)	44 vs 6
High-risk cytogenetics	22%	26%		
High-risk clinical class.	80%	72%		
EMD subtype: PMD / EMD-S	55% / 35%	–		

ACKNOWLEDGEMENTS

The authors thank the medical, nursing, and laboratory staff of the Hematology Department, Hospital Farhat Hached, Sousse, for their contribution to patient care and data collection.

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REFERENCES

1. Rasche L et al. Presence of extramedullary disease is an adverse prognostic factor in newly diagnosed multiple myeloma. Blood 2017.

2. Gagelmann N et al. Impact of extramedullary disease in multiple myeloma. Bone Marrow Transplant 2018.

Abstract ID: MM-1322.