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Background and Aims

Primary extramedullary disease (EMD) represents an aggressive, bone marrow-independent form of newly diagnosed multiple myeloma (MM), conferring high therapeutic resistance. Yet, its real impact on baseline CRAB features, tumor burden, and long-term survival needs further characterization.

This study aims to evaluate the impact of inaugural EMD on baseline CRAB features, tumor burden markers (LDH, ISS stage), treatment response, overall survival (OS), and progression-free survival (PFS) by comparing patients with and without EMD.

Methods

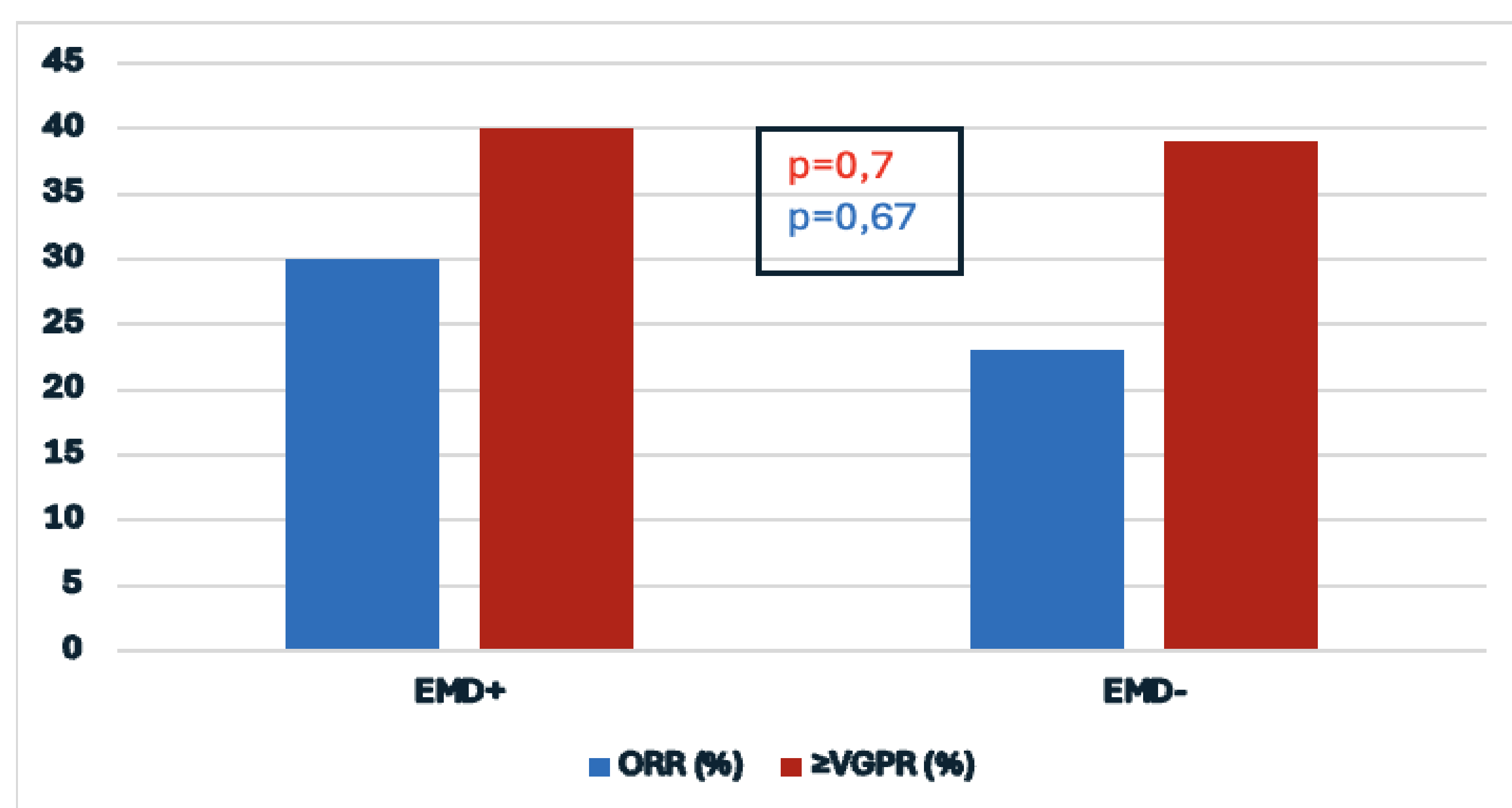
- ✓ Retrospective study
- ✓ Inclusion criteria: Elderly and newly diagnosed MM patients treated with VMP
- ✓ Period of the study : 2019–2025
- ✓ Study setting: Fattouma Bourguiba University Hospital, Monastir, Tunisia.
- ✓ Patients were stratified by baseline imaging-confirmed EMD.
- ✓ Initial CRAB criteria, LDH levels, ISS stage, and post-induction response according to the IMWG criteria were compared.
- ✓ The OS and PFS were estimated using Kaplan-Meier and log-rank tests using SPSS version 26.

Results

- ✓ 53 patients were included. EMD was identified in 10 patients (19%).
- ✓ At diagnosis, these patients presented with more aggressive disease features (Table1)

Disease feature	EMD + group	EMD – group	p
Hypercalcemia (%)	10%	2%	0,034
Elevated LDH levels	30%	20%	0,04
advanced ISS stage ≥2	60%	34%	0,049
Renal impairment rates	30%	23%	0,650
Bone involvement	100%	83%	0,075

- ✓ Following induction therapy, the overall response rate was comparable



- ✓ After a median follow-up of 56 months, the estimated 3-year OS was 81%.
- ✓ The absence of EMD showed a non-significant trend toward improved 3-year OS (85% vs 67%; $P=0.462$).
- ✓ Inaugural EMD was significantly associated with inferior 3-year PFS (74% vs 89%; $P=0.039$).

Conclusion

Despite comparable early therapeutic response rates post-induction, EMD at presentation confers a significantly worse long-term PFS, underscoring the requirement of risk-adapted and intensified consolidation strategies.

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