

## Introduction :

Multiple myeloma (MM) is a plasma cell malignancy characterized by bone marrow infiltration and CRAB features [1]. Extramedullary disease (EMD) corresponds to the dissemination of plasma cells outside the bone marrow microenvironment, leading to the formation of soft-tissue plasmacytomas [2,5]. EMD represents a highly aggressive form of MM [4,5]. It remains uncommon, occurring in 0.5–4.8% at diagnosis and up to 14% in relapsed/refractory disease [5]. It is associated with:

- High-risk cytogenetic abnormalities [4,5]
- Resistance to standard therapies [2,4]
- Frequent relapse [4]
- Poor prognosis (median OS: 8–36 months) [4,5]

Despite therapeutic advances, available data remain limited and are mainly derived from retrospective studies [5].

### Purpose of this study:

**Aim 1:** Describe clinical, biological, and therapeutic characteristics of patients with MM and extramedullary disease  
**Aim 2:** Evaluate treatment outcomes and compare with literature data

To achieve these objectives, we conducted a retrospective study of patients with MM and EMD treated at Mohammed VI University Hospital, Tangier (2022–2024).

## Results :

A total of **thirteen patients** with multiple myeloma and extramedullary disease were included in the analysis.

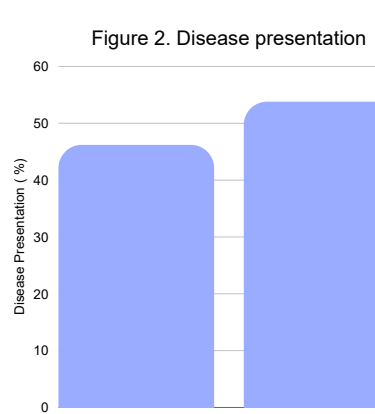
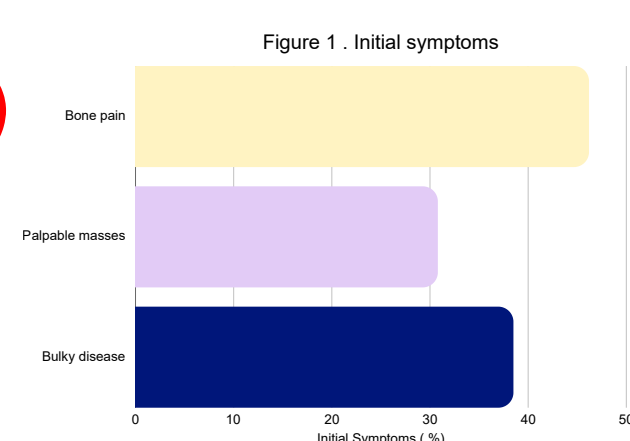
Table 1. Patient Characteristics

Patients characteristic	Overall (N=13)
Patients	13
Median age at diagnosis (years)	63
Male (%)	38.5%
Female (%)	61.5%

**The most Common Comorbidities :**  
Hypertension and diabetes  
38.5%

### Initial Symptoms (Figure 1)

Bone pain 46.2%  
Palpable masses 30.8%  
Bulky disease 38.5%



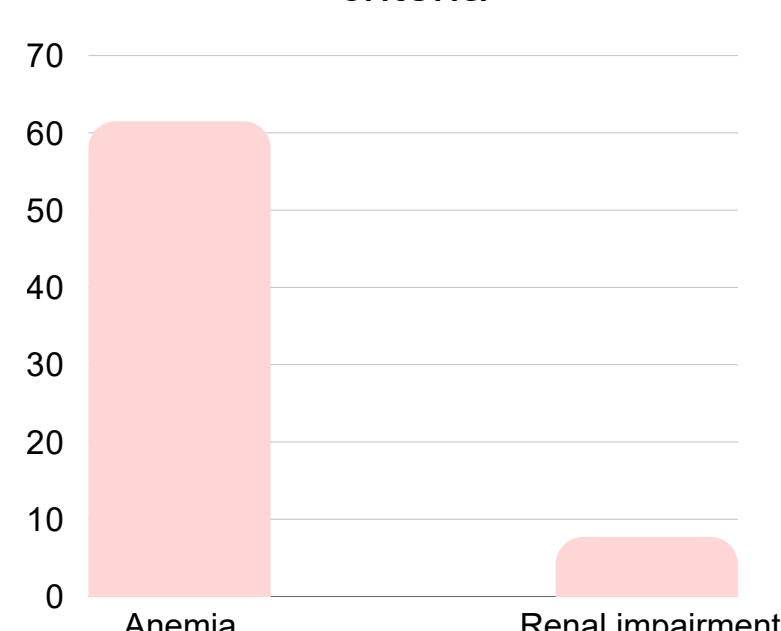
### Disease presentation (Figure 2)

Novo 46.2%  
Relapsed/Refractory disease 53.8%

**The most frequent site of extramedullary involvement** was bone-related soft-tissue lesions 23.1%

**18% of patients had high-risk cytogenetics, predominantly del(17p) and t(4;14).**

Figure 3. SLiM-CRAB criteria



**Anemia was the most frequent CRAB feature (61.5%), whereas renal impairment was less common (7.7%). (Figure 3)**

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**Whole-body MRI most used (61.5%); PET-CT (23.1%). (Figure 4)**

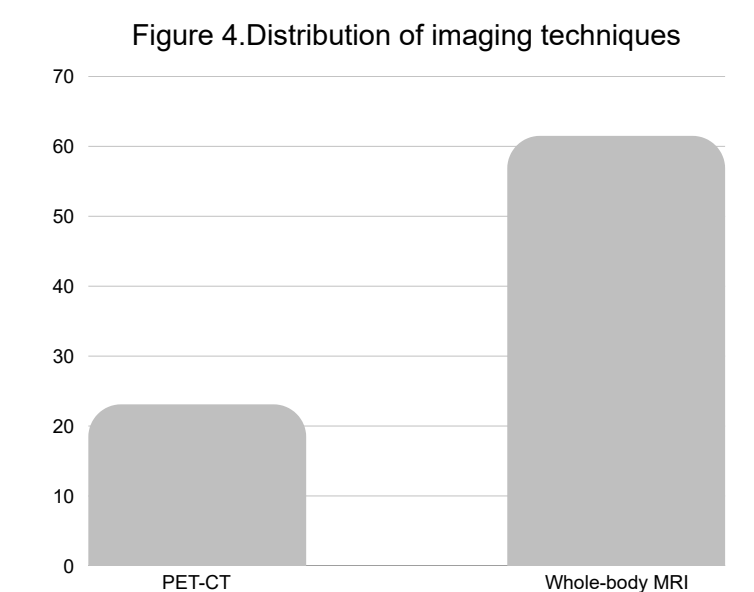


Table 2. Distribution of prior lines of therapy

Lines	n (%)
0	4 (30.8%)
1	4 (30.8%)
≥2	5 (38.5%)

**38.5% of patients had ≥2 prior lines of therapy. (Table 2)**

Table 3. Prior treatment regimens

Regimen	n (%)
CTD (Cyclophosphamide, Thalidomide, Dexamethasone)	4 (30.8%)
RD (Lenalidomide, Dexamethasone)	3 (23.1%)
VCD (Bortezomib, Cyclophosphamide, Dexamethasone)	3 (23.1%)
MP (Melphalan, Prednisone)	2 (15.4%)
VRD (Bortezomib, Lenalidomide, Dexamethasone)	2 (15.4%)
Others*	1 (7.7%) each

\*Includes VTD, PACE, D-VD, MPT, DRD, Bendamustine

**CTD was the most commonly used regimen (30.8%), followed by RD-based and VCD regimens (23.1% each). (Table 3)**

### Treatment responses (Figure 5)

Progression 30.8%  
Relapse 23.1%  
Partial response 23.1%  
VGPR 15.4%

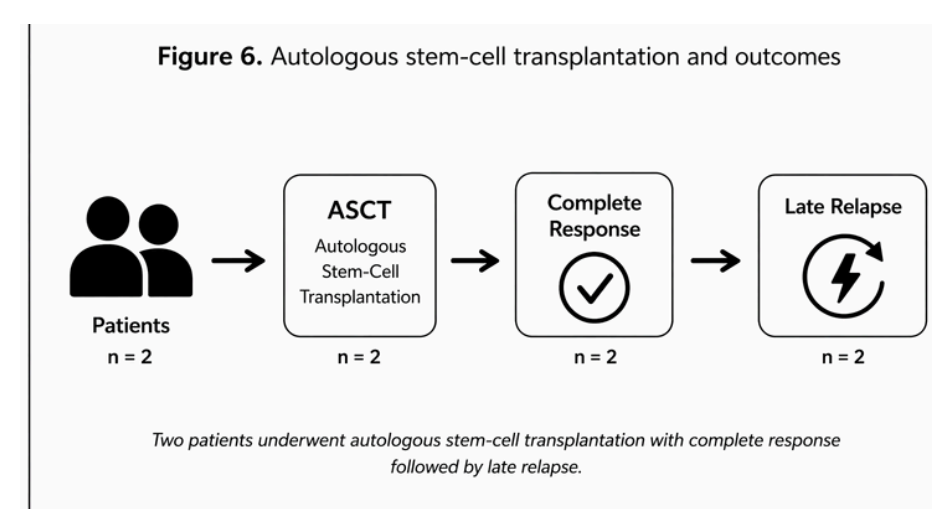
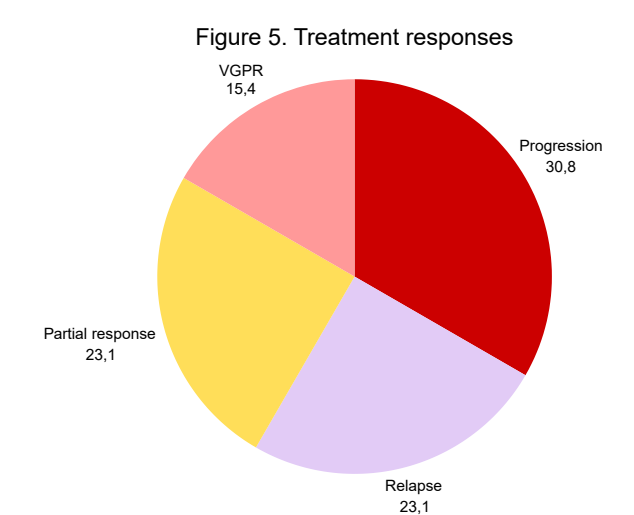
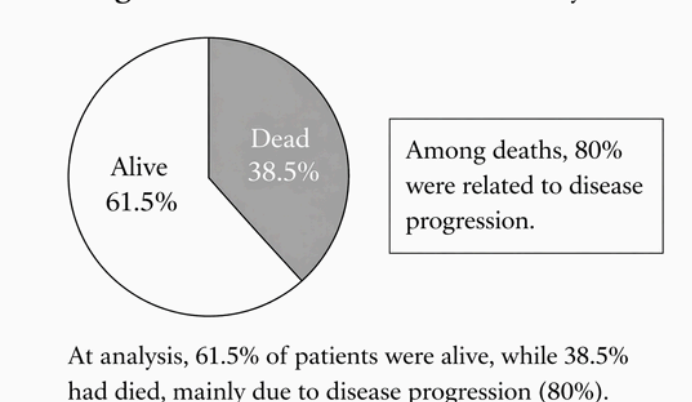


Figure 7. Overall survival status at analysis



## Conclusion :

This study highlights:

- A rare and aggressive high-risk disease
- The critical role of early imaging diagnosis
- The importance of cytogenetic abnormalities in risk stratification and prognosis
- The need for personalized multidisciplinary care
- The importance of future prospective studies

## References:

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4. Usmani SZ, et al. Extramedullary disease portends poor prognosis in multiple myeloma. Haematologica. 2012;97:1761–7.
5. Bladé J, Beksac M, Caers J, et al. Extramedullary disease in multiple myeloma: a systematic literature review. Blood Cancer J. 2022;12:45.

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