

# 42

DIADA

**Societat Catalana  
d'Hematologia i  
Hemoteràpia**



Mieloma múltiple i altres gammopaties:  
De la biologia al tractament

Divendres, **1 de juny de 2018**

Auditori de l'Acadèmia, Barcelona

Organitzador



PROGRAMA

# PLASMOCITOMA SOLITARI

Joan Bladé

Unitat d'Amiloïdosi i Mieloma

ICMHO, Hospital Clínic

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# **Solitary Plasmacytomas**

# Solitary Plasmacytoma of Bone (SPB): Diagnostic Criteria

- Single area of bone destruction due to the plasma cell proliferation
- Bone marrow with < 10% plasma cells
- Absence of other skeletal lesions on PET/CT
- No anemia, hypercalcemia or renal impairment
- Absence of serum and urine M-protein  
(50% of patients have a small serum M-component)

# Extramedullary Plasmacytoma (EMP): Diagnostic Criteria

- Single extramedullary tumour of clonal plasma cells
- Normal bone marrow
- Absence of other lesions on PET/CT
- No anemia, hypercalcemia or renal impairment
- Absence of serum and urine M-protein  
(some patients may have a small serum M-component)

# Clinical Features of SPB vs. EMP

	<b>SBP</b>	<b>EMP</b>
<b>Median age (yrs.)</b>	55	55
<b>M:F</b>	2:1	3:1
<b>Main location</b>	Axial skeleton (vertebral)	Head and neck
<b>M-protein (%)</b>	50	<25
<b>Progression to MM</b>	≥ 75	8-30
<b>10-yr survival (%)</b>	40-50	70

# **Solitary Plasmacytoma of Bone (SPB): Adverse Prognostic Features (I)**

- Older age
- Involvement of axial skeletal versus long bones
- Plasmacytoma size  $\geq 5$  cms
- Immunoparesis
- Persistence of the M-protein after radiation therapy

# **Solitary Plasmacytoma of Bone (SPB): Adverse Prognostic Features (II)**

- Abnormal bone marrow flow cytometry
- Presence of focal lesions on MRI or > 1 metabolic lesion at PET
- Abnormal free light-chain ratio

# Multiparameter flow cytometry for staging of SBP: new criteria for risk of progression to MM

## Solitary bone plasmacytoma (SBP)

	<b>BM clonal PC</b>	<b>Progression to MM (%)</b>
Yes	17/35 (49%)	71%
No	18/35 (51%)	8%

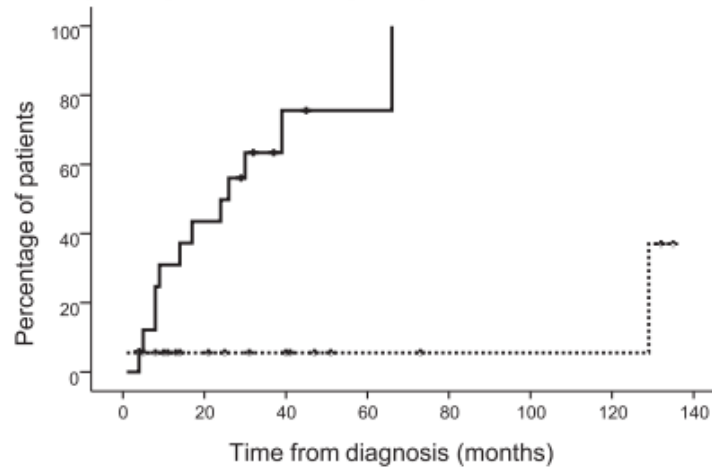
## Extramedullary plasmacytoma (EMP)

	<b>BM clonal PC</b>	<b>Progression to MM (%)</b>
Yes	11/29 (38%)	20%
No	18/29 (62%)	6%



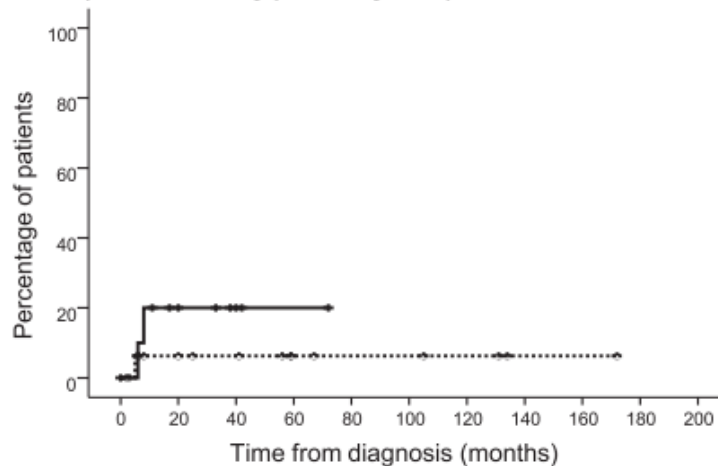
# Multiparameter flow cytometry for staging of SBP: new criteria for risk of progression to MM

**A TTP (solitary bone plasmacytoma)**



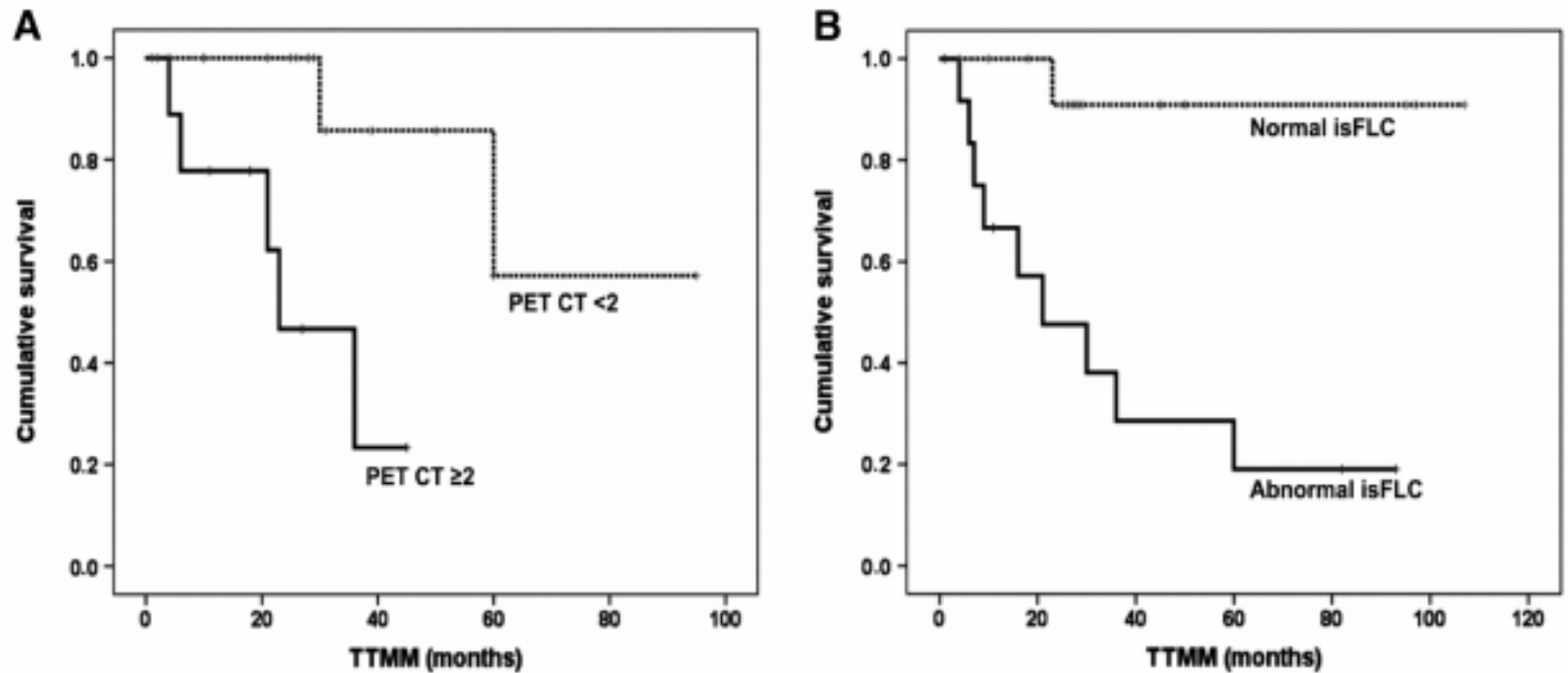
Flow-positive: 26m; 63% at 3-years  
Flow-negative: NR; 6% at 3-years  
HR: 17.4;  $P < .001$

**B TTP (extramedullary plasmacytoma)**



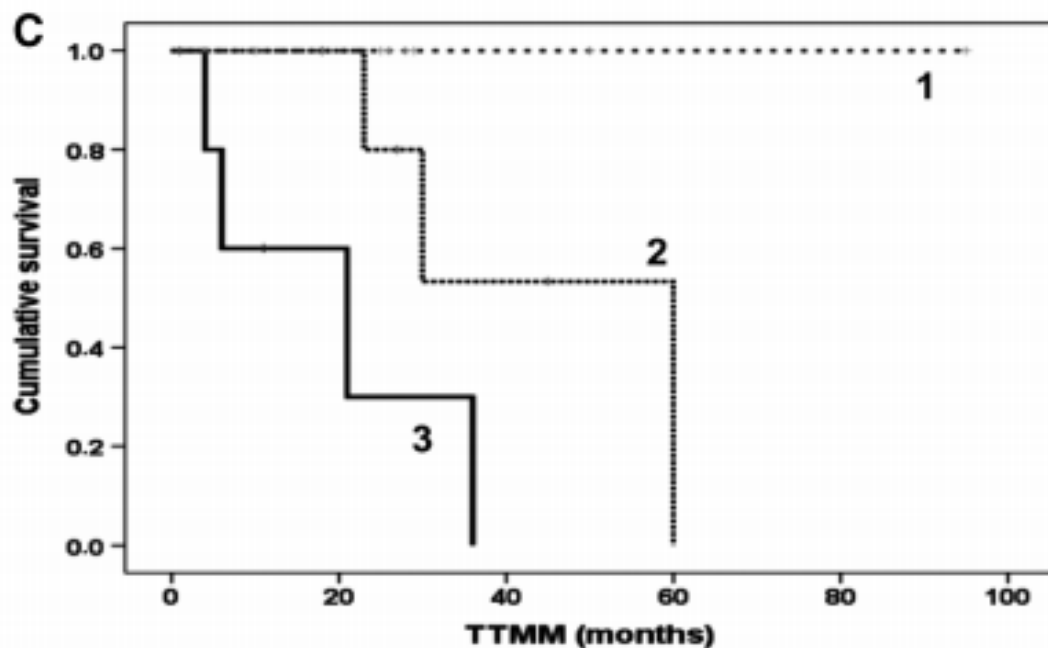
Flow-positive: NR; 20% at 3-years  
Flow-negative: NR; 6% at 3-years  
HR: 10.9;  $P = .35$

# Impact of Initial FDG-PET/CT and Serum-FLC on Transformation of Solitary Plasmacytoma to MM



**Table 3.** Proposed risk model for progression from SP to MM, with two variables and three categories

Categories		TTMM Median, mo (+ se)	HR (95% CI)	P
1	Normal isFLC + PET/CT < 2	Nr	—	—
2	Abnormal isFLC + PET/CT < 2 or normal isFLC + PET/CT ≥ 2	41 (2)	5 (0-16)	0.002
3	Abnormal isFLC + PET/CT ≥ 2	21 (2)	25 (0-76)	0.004



# Treatment of Solitary Plasmacytoma (I)

- Local radiation covering the entire tumor volume with a margin of at least 2 cm. Dose of **40 Gy in 20 fractions** (*grade B recommendation, level III of evidence*). 2004 United Kingdom Myeloma Forum, *British Journal of Haematology*
- Bulky SPB (> 5 cm) dose of **50 Gy in 25 fractions** (*grade C recommendation, level IV of evidence*)
- A margin of 2 cm should be employed
- In case of SBP affecting vertebrae, the margin should include at least one uninvolved vertebra on either side

# Treatment of Solitary Plasmacytoma (II)

## Indications of surgery

- SBP
  - Treatment of pathological fractures
  - Neurological complications
  - Lesions with a high-chance for fracture or instability
- EMP
  - Resection of large and well-defined masses (followed by radiotherapy)

# Treatment of Solitary Plasmacytoma (III)

- Non-responders
- Bulky mass ( $> 5$  cm)
- Large osteolytic lesion



TREATMENT AS  
MULTIPLE MYELOMA

# **Macrofocal Myeloma**

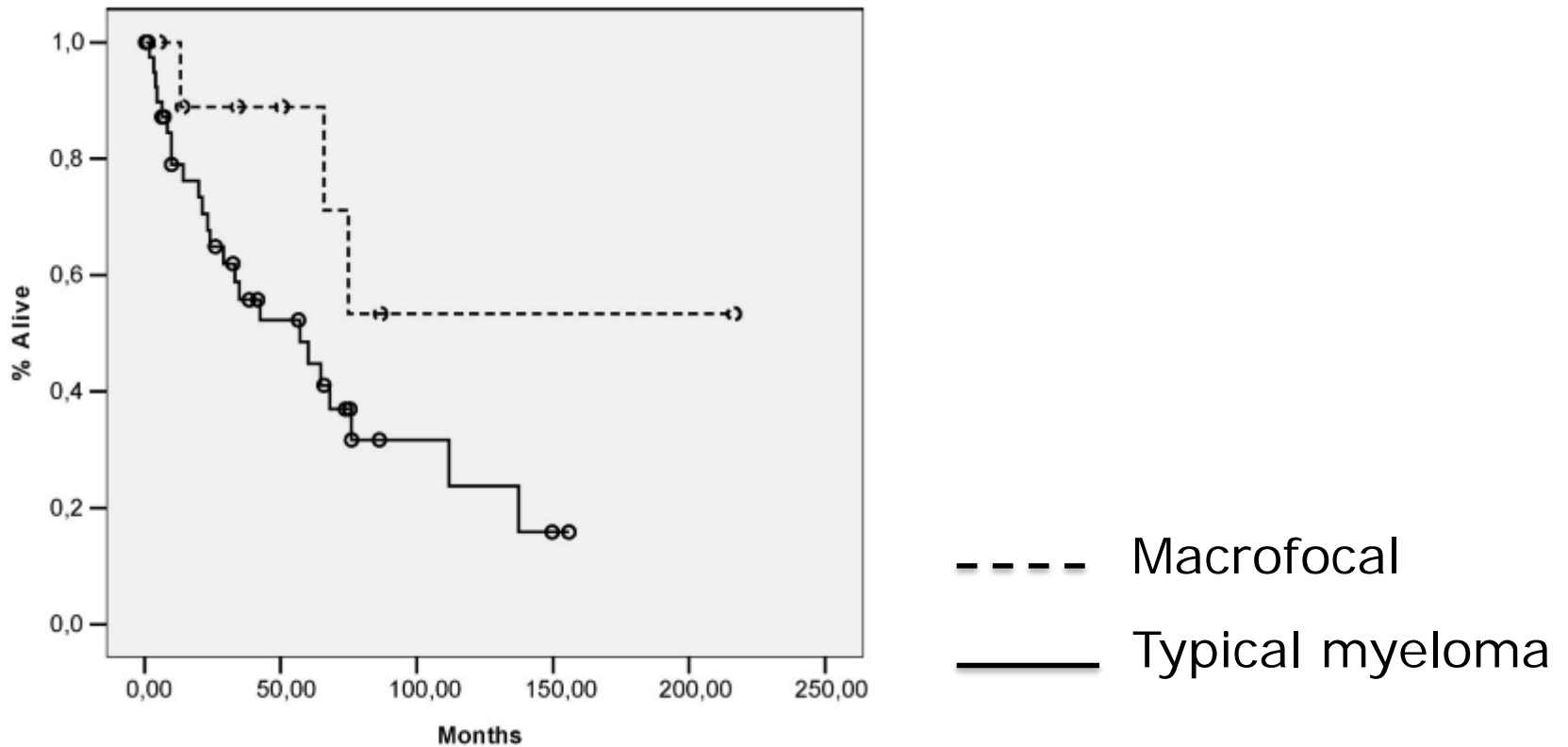
# Macrofocal Myeloma

- Younger age
- Multiple bone lytic lesions +/- soft-tissue masses
- <10% BMPCs
- Small M-protein
- Favorable prognosis

Dimopoulos et al, Leuk Lymphoma 2006;  
Hewell and Alexanian, Arch Intern Med 1976;  
Bladé et al, Arch Intern Med, 1996



# OS of macrofocal vs typical myeloma



**GRACIES PER LA VOSTRA ATENCIÓ**

