

Chemotherapy in solitary bone plasmacytoma to prevent evolution to multiple myeloma

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TABLES

Supplementary Table S1. Characteristics of 69 patients with SBP according to treatment procedures: radiotherapy alone or combined with adjuvant chemotherapy

	Radiotherapy alone N=45 (%)	Adjuvant Chemotherapy N =24 (%)	P*
Baseline characteristics			
Median age, years (range)	58.0 (27.0-89.0)	60.5 (30.0-82.0)	0.39
Male sex	27 (60.0%)	14 (58.3%)	0.89
Spine location	24 (53.3%)	13 (54.2%)	0.95
Positive IF (serum and/or urine)	33 (73.3%)	23 (95.8%)	0.03
Median serum M spike size, g/L (range)	3.9 (0-36.0)	5.3 (0-25.4)	0.20
Missing	2 (4.4%)	0 (0)	-
Median BMPC, % (range)	1 (0-7.0)	2 (0-8.0)	0.10
BMPC ≥ 5%	5 (11.1%)	6 (25.0%)	0.17
Aberrant and/or immature PC on BM aspiration	14 (31.1%)	8 (33.3%)	0.66
Missing	2 (4.4%)	3 (12.5%)	-
Modern imaging for diagnosis (PET/CT or WB-MRI)	38 (84.4%)	23 (95.8%)	0.25
Treatment regimen			
Median radiotherapy dose, grays (range)	45.0 (40.0-55.0)	44.0 (30.0-54.0)	0.24
Radiotherapy dose ≥ 45 grays	25 (55.6%)	11(45.8%)	0.31
Missing	4 (8.9%)	1 (4.2%)	-
Surgery	12 (26.7%)	6 (25.0%)	0.88
Adjuvant chemotherapy	0 (0)	24 (100%)	-
Response after radiotherapy			
Positive IF (serum and/or urine)	24 (53.3%)	20 (83.3%)	0.03
Median serum M-spike size, g/L (range)	0 (0-33.5)	6.5 (0-23.2)	0.06
Complete response	12 (26.7%)	0 (0)	0.002
Missing	6 (13.3%)	0 (0)	-

Abbreviations: BMPC: bone marrow plasma cell, IF: immunofixation, M: monoclonal, WB: whole body, SBP: solitary bone plasmacytoma

* Tests: Wilcoxon test for continuous variable, Chi-squared test for categorical variable or Fisher's Exact Test when appropriate

Supplementary Table S2. Factors associated with progression to MM and survival: analysis in 77 patients with solitary bone plasmacytoma

Parameter	Multiple myeloma					Survival		
	Univariate analysis			Multivariate analysis		Univariate analysis		
	N	HR (95%CI)	P	HR (95%CI)	P	N	HR (95%CI)	P
Baseline characteristics								
Age, years	77	1.01 (0.98-1.03)	0.59	-	-	77	1.06 (1.002-1.11)	0.04
Male sex	77	1.01 (0.55-1.83)	0.99	-	-	77	1.81 (0.49-6.65)	0.37
Spine location	77	1.10 (0.61-2.00)	0.75	-	-	77	0.38 (0.12-1.17)	0.09
Positive IF (serum and/or urine)	77	1.78 (0.77-4.01)	0.18	-	-	77	-	0.04
Serum M-spike size, g/L	74	1.03 (1.00-1.07)	0.07	1.00 (0.95-1.05)	0.94	74	1.02 (0.97-1.09)	0.43
BMPC, %	77	1.03 (0.89-1.19)	0.70	-	-	77	1.10 (0.86-1.39)	0.47
BMPC ≥ 5%	77	1.70 (0.84-3.45)	0.14	2.40 (1.00-5.74)	0.05	77	2.17 (0.67-7.06)	0.20
Aberrant and/or immature PC on BM aspiration	72	1.10 (0.59-2.04)	0.76	-	-	72	1.42 (0.43-4.67)	0.56
Modern imaging for diagnosis (PET/CT or WB-MRI)	77	1.19 (0.50-2.82)	0.70	-	-	77	2.89 (0.37-22.73)	0.31
Treatment regimen								
Radiotherapy dose, grays	72	1.03 (0.96-1.10)	0.39	-	-	72	1.01 (0.90-1.14)	0.86
Radiotherapy dose ≥ 45 grays	72	1.09 (0.59-2.03)	0.79	-	-	72	1.79 (0.54-5.96)	0.35
Surgery	77	1.08 (0.57-2.04)	0.81	-	-	77	0.89 (0.27-2.90)	0.85
Chemotherapy (adjuvant or concomitant)	77	0.68 (0.36-1.26)	0.22	0.50 (0.25-1.00)	0.05	77	1.56 (0.49-4.94)	0.45
Response after complete treatment (radiotherapy alone or combined with chemotherapy)								
Positive IF (serum and/or urine)	74	3.67 (1.90-7.07)	<0.001	-	-	74	7.61 (1.68-34.43)	0.008
Serum M-spike size, g/L	74	1.09 (1.05-1.13)	<0.001	-	-	74	1.02 (0.96-1.08)	0.61
Complete response	71	0.28 (0.13-0.59)	<0.001	0.25 (0.11-0.59)	0.002	71	0.22 (0.05-0.99)	0.05

Abbreviations: BMPC: bone marrow plasma cell, IF: immunofixation; M: monoclonal, MM: multiple myeloma, SBP: solitary bone plasmacytoma, WB: whole body

FIGURES

Supplementary Figure S1. Survival outcomes in the entire study population: Multiple myeloma-free survival (A) and Overall survival (B)

