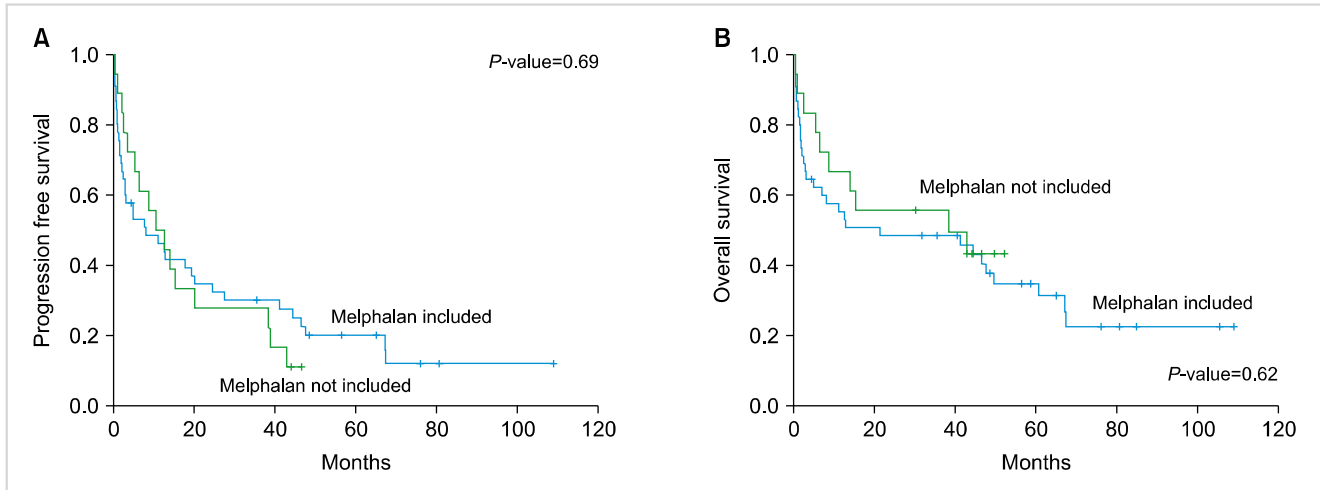


Supplementary Fig. 1. PFS of patients who did not die within 6 months (A), OS of patients who did not die within 6 months (B).



Supplementary Fig. 2. PFS for the addition of melphalan in all patients (A), OS for the addition of melphalan in all patients (B).

Supplementary Table 1. Incidence of early death according to the type of regimen, MAYO 2012 stage, and site of organ involvement (N=21).

Variables	N of patients who died within 6 mo	%
Total	21/63	33.3
Regimen		
VMP	12/37	32.4
VD	3/9	33.3
VCD	1/8	12.5
VMD	5/8	62.5
VTD	0/1	0
MAYO 2012		
I	0	0
II	1/2	50
III	5/18	27.7
IV	13/35	37.1
Organ		
Heart	15/41	36.5
Kidney	6/20	30

Supplementary Table 2. Among patients who lived longer than 6 months, the number of patients who achieved organ and hematologic responses (N=42).

	Heart	Kidney
Organ response	8/26 (30.7%)	13/14 (92.8%)
Hematologic response		
ORR	36/42 (85.7%)	
CR	19/42 (45.2%)	
VGPR	10/42 (23.8%)	
PR	7/42 (16.6%)	

Supplementary Table 3. Patients who were treated with melphalan induced regimen or not.

Mephalan	Yes (N=45)	No (N=18)	Total (N=63)	P
Age	68.0 (42–82)	61.0 (47–67)	66.0 (42–82)	< 0.001
Sex				1.000
Male	23 (51.1%)	9 (50.0%)	32 (50.8%)	
Female	22 (48.9%)	9 (50.0%)	31 (49.2%)	
Presenting symptom				0.543
Abdmlinal pain	1 (2.2%)	0 (0.0%)	1 (1.6%)	
Azotemia	2 (4.4%)	0 (0.0%)	2 (3.2%)	
Back pain	2 (4.4%)	0 (0.0%)	2 (3.2%)	
Cough	1 (2.2%)	0 (0.0%)	1 (1.6%)	
Diarrhea	2 (4.4%)	0 (0.0%)	2 (3.2%)	
Dizziness	0 (0.0%)	1 (5.6%)	1 (1.6%)	
Dyspnea	24 (53.3%)	9 (50.0%)	33 (52.4%)	
Edema	6 (13.3%)	3 (16.7%)	9 (14.3%)	
Hematochezia	0 (0.0%)	1 (5.6%)	1 (1.6%)	
Oliguria	1 (2.2%)	0 (0.0%)	1 (1.6%)	
Poor oral intake	1 (2.2%)	0 (0.0%)	1 (1.6%)	
Proteinuria	2 (4.4%)	3 (16.7%)	5 (7.9%)	
Syncope	1 (2.2%)	1 (5.6%)	2 (3.2%)	
Organ involvement				1.000
Heart	29 (64.4%)	12 (66.7%)	41 (65.1%)	
Kidney	11 (24.4%)	9 (50.0%)	20 (31.7%)	
Liver	2 (4.4%)	2 (11.1%)	4 (6.3%)	
Peripheral neuropathy	21 (46.7%)	2 (11.1%)	23 (36.5%)	
Autonomic neuropathy	32 (71.1%)	14 (77.8%)	46 (73.0%)	
Gastrointestinal	9 (20.0%)	2 (11.1%)	11 (17.5%)	
Lung	1 (2.2%)	1 (5.6%)	2 (3.2%)	
Soft tissue	11 (24.4%)	5 (27.8%)	16 (25.4%)	
N of organ involvement				0.507
1	7 (15.6%)	1 (5.6%)	8 (12.7%)	
2	16 (35.6%)	4 (22.2%)	20 (31.7%)	
3	15 (33.3%)	8 (44.4%)	23 (36.5%)	
4	5 (11.1%)	4 (22.2%)	9 (14.3%)	
5	2 (4.4%)	1 (5.6%)	3 (4.8%)	
ECOG				0.626
0	8 (17.8%)	4 (22.2%)	12 (19.0%)	
1	28 (62.2%)	9 (50.0%)	37 (58.7%)	
2	5 (11.1%)	4 (22.2%)	9 (14.3%)	
3	4 (8.9%)	1 (5.6%)	5 (7.9%)	
Heavy_chain				0.113
IgA	4 (8.9%)	2 (11.1%)	6 (9.5%)	
IgD	3 (6.7%)	0 (0.0%)	3 (4.8%)	
IgG	13 (28.9%)	1 (5.6%)	14 (22.2%)	
No heavy chain	25 (55.6%)	15 (83.3%)	40 (63.5%)	
Light_chain				0.237
Kappa	10 (22.2%)	5 (27.8%)	15 (23.8%)	
Lambda	35 (77.8%)	12 (66.7%)	47 (74.6%)	
t(11:14)				0.941
No	42 (93.3%)	16 (88.9%)	58 (92.1%)	
Yes	3 (6.7%)	2 (11.1%)	5 (7.9%)	
CRAB				
Anemia	24 (53.3%)	8 (44.4%)	32 (50.8%)	0.720
Renal insufficiency	8 (17.8%)	5 (27.8%)	13 (20.6%)	0.588
Hypercalcemia	3 (6.7%)	0 (0.0%)	3 (4.8%)	0.640
Bone lesions	1 (2.2%)	0 (0.0%)	1 (1.6%)	1.000
dFLC	545.0 (8–11,633)	335.0 (56–7,007)	458.0 (8–11,633)	0.538
Beta2 microglobulin				0.658
≤ 3.5 mg/L	20 (48.8%)	9 (60.0%)	29 (51.8%)	
> 3.5 mg/L	21 (51.2%)	6 (40.0%)	27 (48.2%)	

Supplementary Table 3. Continued.

Mephalan	Yes (N=45)	No (N=18)	Total (N=63)	<i>P</i>
Albumin				0.138
≥ 3.5 g/dL	20 (48.8%)	13 (72.2%)	33 (52.3%)	
< 3.5 g/dL	25 (51.8%)	5 (27.8%)	30 (47.7%)	
Systolic.BP	106.0 (63-159)	99.5 (56-125)	102.0 (56-159)	0.394
NTproBNP	6207.0 (285.4-35,000)	6600.0 (1,692-33,096)	6238.5 (285.4-35,000)	1.000
NTproBNP				1.000
> 332 ng/L	44 (97.8%)	17 (94.5%)	61 (98.4%)	
> 1,800 ng/L	37 (82.2%)	15 (88.2%)	52 (83.9%)	
> 8,500 ng/L	17 (37.8%)	6 (35.3%)	23 (37.1%)	
Systolic.BP				0.658
≤ 100 mmHg	18 (40.0%)	9 (50.0%)	27 (42.9%)	
> 100 mmHg	27 (60.0%)	9 (50.0%)	36 (57.1%)	
Troponin I				0.768
> 0.1 ng/mL	28 (73.7%)	10 (83.3%)	38 (76.0%)	
Troponin T				0.773
> 0.025 ng/mL	34 (75.5%)	17 (94.5%)	51 (80.9%)	
> 0.035 ng/mL	32 (71.1%)	16 (88.9%)	48 (76.1%)	
> 0.060 ng/mL	26 (57.7%)	12 (66.7%)	38 (60.3%)	
Mayo2012				0.261
II	1 (2.6%)	1 (5.9%)	2 (3.6%)	
III	15 (39.5%)	3 (17.6%)	18 (32.7%)	
IV	22 (57.9%)	13 (76.5%)	35 (63.6%)	