

Supplementary tables

Supplementary table 1. Control population characteristics

Age, median (range)	59.8 (28.9-77.4)
Site of primary lesion, N (%)	
Skin	22 (88.0)
Unknown	3 (12.0)
Histology, N (%)	
Superficial spreading	8 (32.0)
Nodular	6 (24.0)
Acral	3 (12.0)
Not specified	8 (32.0)
Sites of relapse, N (%)	
Soft tissue	16 (64.0)
Lung	20 (80.0)
Bone	3 (12.0)
Brain*	2 (8.0)
Other viscera	9 (36.0)
Baseline LDH, N (%)	
Normal	22 (88.0)
High	3 (12.0)
First line therapy, N(%)	
Anti-CTLA4	9 (36.0)
Anti-PD1	1 (4.0)
BRAF _i +/- MEK _i	7 (28.0)
Chemotherapy	7 (28.0)
Other	1 (4.0)
First line best response, N (%)	
CR	0
PR	5
SD	8
PD	10
First line PFS, median (95% CI)	4.1 (2.7-8.4)
First line OS, median (95% CI)	43.0 (12.6-NR)
Second line therapy, N(%)	
Anti-CTLA4	14 (70.0)
Anti-PD1	4 (20.0)
BRAF _i +/- MEK _i	1 (5.0)
Chemotherapy	1 (5.0)
Other	0 (0.0)
Second line PFS, median (95% CI)	6.6 (3.5-NR)
Second line OS, median (95% CI)	13.4 (7.0-NR)
Third line therapy, N(%)	
Anti-CTLA4	2 (22.2)
Anti-PD1	5 (55.6)
BRAF _i +/- MEK _i	2 (22.2)
Chemotherapy	0 (0.0)
Other	0 (0.0)
Third line PFS, median (95% CI)	3.4 (1.0-NR)

Third line OS, median (95% CI)	5.7 (1.8-NR)
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Abbreviations: N: number; LDH: lactate dehydrogenase; BRAFi: BRAF inhibitor; MEKi: MEK inhibitor; CR: complete response; PR: partial response; SD: stable disease; PD: progressive disease; PFS: progression free survival; OS: overall survival

*Both patients received brain RT during first line chemotherapy, with brain disease stabilization, and received immunotherapy as a subsequent line of treatment