

Supplementary Material: *BRAF*^{V600E} Mutant Allele Frequency (MAF) Influences Melanoma Clinicopathologic Characteristics

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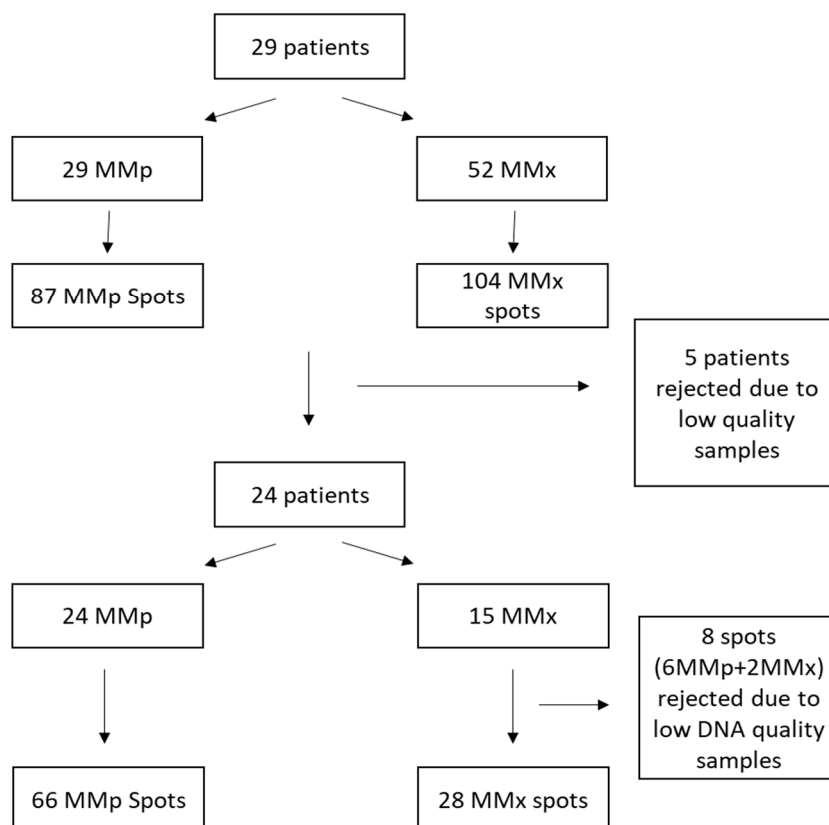
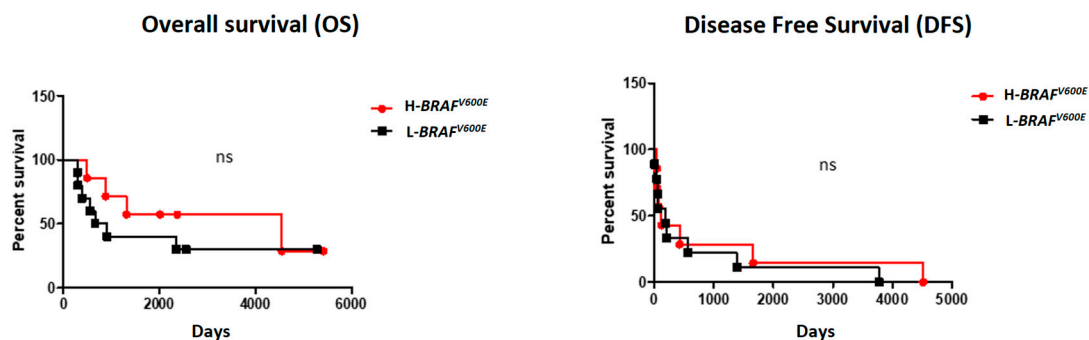
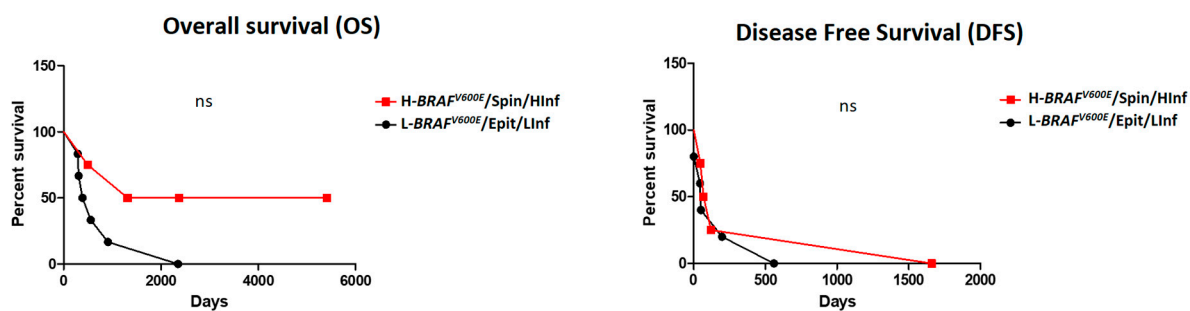


Figure S1. Patient selection.

(a)



(b)



Statistical analysis was performed using the Kaplan-Meier method. (ns: non-significant)

Figure S2. (a) Overall survival and disease free survival of patients depending on BRAFV600E MAF variation (high vs. low); (b) Overall survival and disease free survival of H-BRAF^{V600E}/Spin/HInf vs. L-BRAF^{V600E}/Epit/LInf patients.

Table S1. Demographic, clinical and tumor characteristics of our series.

Case n°	Gender	Age*	MMP subtype	Location	Breslow index	Clark index	Ulceration	Mitotic index	Driver mutation	MMx subtype	Treatment	Dead (months)**	MM as cause of death
1	M	63	SSM	Trunk	3,81	4	Yes	1	<i>BRAF^{V600E}</i>	Nodal (regional) Visceral	SE+RT (adjuvant) Verumafenib	No (77)	-
2	M	68	SSM	Trunk	1,30	3	No	2	<i>BRAF^{V600E}</i>	Nodal (regional) Visceral	SE+RT (adjuvant) Palliative	Yes (43)	Yes
3	M	58	NM	Trunk	3,77	4	No	2	<i>BRAF^{V600E}</i>	Nodal (regional)	SE + IFN (adjuvant)	No (66)	-
4	F	61	NM	Trunk	6,23	5	Yes	2	<i>BRAF^{V600E}</i>	Nodal (regional) Skin(in-transit/distant)	SE+RT (adjuvant) Encorafenib + Binimetinib	No (77)	-
5	M	37	SSM	Trunk	1,67	4	No	5	<i>BRAF^{V600E}</i>	Nodal (regional) Skin (distant)	SE + RT (adjuvant) Ipilimumab (1st line); Verumafenib (2nd line)	No (177)	-
6	M	66	SSM	Extremities	5,20	4	Yes	10	<i>BRAF^{V600E}</i>	Skin (satellitosis)	SE	Yes (9)	No
7	F	85	SSM	Extremities	4,15	4	Yes	7	<i>BRAF^{V600E}</i>	Skin (satellitosis) Nodal (regional)	SE	Yes (12)	No
8	M	46	SSM	Extremities	1,12	3	No	N/A	<i>BRAF^{V600E}</i>	Skin (in-transit)	Nivolumab	No (173)	-
9	F	86	SSM	Extremities	7,30	5	Yes	7	<i>BRAF^{V600E}</i>	Skin (in-transit) Nodal (regional)	IC PT	Yes (29)	Yes
10	M	58	NM	Head and neck	3,80	4	Yes	1	<i>BRAF^{V600E}</i>	Nodal (regional) - Visceral	SE+ RT (adjuvant) Verumafenib	Yes (21)	Yes
11	M	24	SSM	Head and neck	4,50	4	Yes	10	<i>BRAF^{V600E}</i>	Skin (satellitosis/in-transit) Visceral	SE+RT Nivolumab (1st line) Dabrafenib+ Trametinib (2nd line)	Yes (18)	Yes
12	M	69	NM	Trunk	5,01	4	Yes	4	<i>NRAS^{Q61}</i>	Nodal (regional) - visceral	SE + RT PT	Yes (9)	Yes
13	F	81	SSM	Extremities	1,28	4	No	1	<i>NRAS^{Q61}</i>	Skin (in-transit) Visceral	IC PT	Yes (24)	Yes
14	M	63	NM	Extremities	3,88	4	Yes	2	<i>NRAS^{Q61}</i>	Nodal (regional)	SE + IFN (adjuvant)	No (91)	-
15	M	63	NM	Trunk	13.50	5	No	11	<i>NRAS^{Q61}</i>	Visceral Skin (regional)	IQ	Yes (38)	Yes
16	M	70	NM	Trunk	1.90	4	Yes	8	WT	Visceral	SE	No (146)	-
17	F	87	SSM	Extremities	2.17	4	No	2	WT	Skin (in-transit) Nodal (regional)	IC PT	Yes (34)	Yes
18	M	84	SSM	Extremities	5.55	4	No	4	<i>BRAF^{V600E}</i>	Skin (satellitosis)	SE	Yes (10)	No
19	F	51	NM	Trunk	3.90	4	No	3	<i>BRAF^{V600E}</i>	Visceral	SE	Yes (28)	Yes
20	M	60	NM	Trunk	2.30	4	Yes	4	<i>BRAF^{V600E}</i>	Nodal (regional) Visceral	SE Encorafenib + Binimetinib.	Yes (16)	Yes
21	M	61	SSM	Extremities	3.80	4	Yes	3	<i>BRAF^{V600E}</i>	Skin (in-transit)	SE	No (83)	-

22	F	33	NM	Trunk	1.57	3	No	1	<i>BRAF^{V600E}</i>	Skin (regional) Visceral	PT	Yes (149)	Yes
23	F	35	SSM	Head and neck	11.15	4	Yes	10	<i>BRAF^{V600E}</i>	Visceral	RT + Verumafenib	Yes (77)	Yes
24	M	65	SSM	Trunk	2.60	3	Yes	5	<i>NRAS^{Q61}</i>	Nodal (regional)	SE + RT + IFN (adjuvant)	Yes (44)	Yes

SSM: superficial spreading melanoma; NM: nodular melanoma; CNS: central nervous system; SE: Surgical excision; RT: Radiotherapy; IFN: Interferon; N/A: not available; IC: Immunocriotherapy; IQ: Immunochemotherapy (Dacarbazine + gemcitabine + IL-2 + IFN); PT: Palliative treatment. *age at MMp diagnosis, **months of follow up since MMp diagnosis.

Table S2. Distribution of pathological characteristics between MMp and MMx groups.

Cell Morphology								Pigmentation				Lymphocitic infiltrate					
Epithelioid		Spindled		Mixed		High		Moderated		Low/absent		High		Moderated		Low/absent	
50		16		28		46		28		20		10		33		51	
MMp	MMx	MMp	MMx	MMp	MMx	MMp	MMx	MMp	MMx	MMp	MMx	MMp	MMx	MMp	MMx	MMp	MMx
32	18	11	5	23	5	36	10	21	7	9	11	4	6	21	12	41	10