

Figure S1 Details on systemic therapy for 12-month survivors.

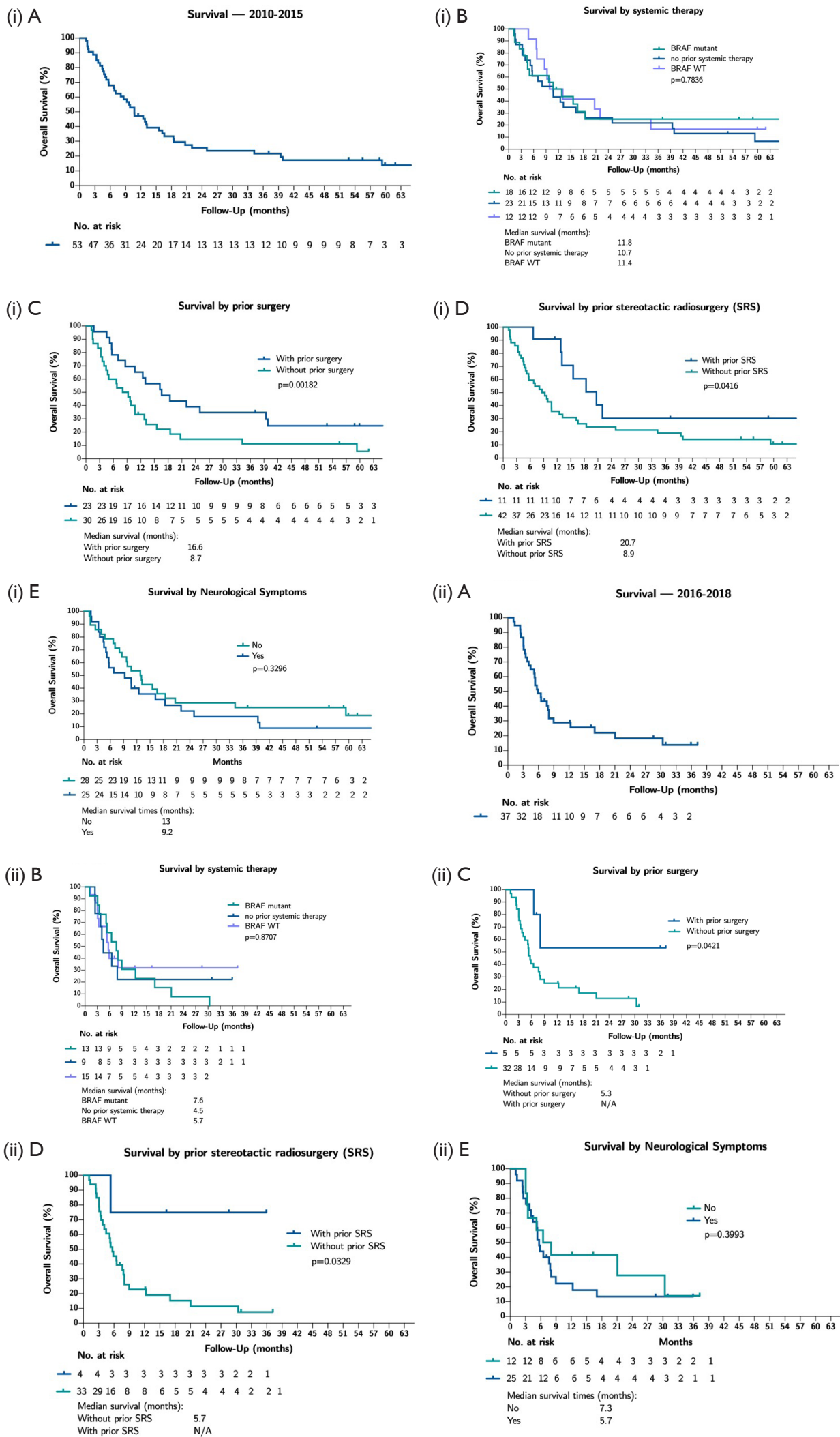


Figure S2 Survival outcomes in patients with WBRT between 2010-2015 (i) and 2016-2018 (ii) (A), by systemic therapy (for BRAF mutant, for no prior systemic therapy, for BRAF WT) (B), prior surgery (C), prior stereotactic radiosurgery (D) and by neurological symptoms (E), respectively.

Table S1 Characteristics of Patients at Baseline at WBRT start by the timing of systemic therapy (2010–2015 vs. 2016–2018)

Characteristics	A 2011-2015		B 2016-2018	
	N (n=53)	%	N (n=37)	%
Gender				
Male	36	68	23	62
Female	17	32	14	38
Age at the Diagnosis of MBM, years				
Median (range)	63 (34-80)		62 (31-84)	
<65	31	58	21	57
≥65	22	42	16	43
ECOG performance status				
0-1	48	91	25	68
2-3	5	9	12	32
BRAF mutation				
Yes	26	49	16	43
No	27	51	21	57
Leptomeningeal disease				
Yes	11	21	10	27
No	42	79	27	73
No. of metastases				
1	4	9.5	0	0
2-3	4	9.5	2	7
4-9	11	26	7	26
≥10	23	55	18	67
Neurological symptoms				
Yes	25	47	25	68
No	28	53	12	32

Table S2 Characteristics of the non-systemic treatment of patients (2011-2015)

Characteristics	Total (n=53)	Second procedure	Third procedure
Whole-brain radiation therapy			
Mean total dose, Gy (range)	29.6 (20-30)		
Median fractions (range)	10 (5-15)		
Neurosurgery			
Before WBRT, No.	23 (43%)	2 (4%)	1 (2%)
After WBRT, No.	6 (11%)	1 (2%)	0
Concurrent SIB with WBRT, No.	16 (30%)		
Median number of lesions (range)	4 (1-10)		
Mean SIB dose, Gy (range)	46 (40-63)		
Median fractions (range)	10 (5-15)		
Stereotactic radiosurgery			
Before WBRT, No.	11 (21%)	3 (6%)	1 (2%)
Median lesions (range)	2 (1-3)	1 (1)	3
Mean total dose, Gy (range)	18.8 (14-22)	19.3 (18-20)	20
Median fractions (range)	1 (1)	1 (1)	1
After WBRT, No.	6 (11%)	2 (4%)	
Median lesions (range)	5 (2-40)	1.5 (1-2)	
Mean total dose, Gy (range)	18.6 (13-24)	19 (18-20)	
Median fractions (range)	1 (1-3)	1	

Table S3 Characteristics of the non-systemic treatment of patients (2016-2018)

Characteristics	Total (n=37)	Second procedure
Whole-brain radiation therapy		
Mean total dose, Gy (range)	27.6 (20-30)	
Median fractions (range)	10 (5-15)	
Neurosurgery		
Before WBRT, No.	5 (14%)	
After WBRT, No.	2 (5%)	
Concurrent SIB with WBRT, No.	11 (30%)	
Median number of lesions (range)	3 (3-5)	
Mean SIB dose, Gy (range)	40 (34-45)	
Median fractions (range)	10 (10-15)	
Stereotactic radiosurgery		
Before WBRT, No.	4 (11%)	2 (5%)
Median lesions (range)	2 (1-2)	1 (1-3)
Mean total dose, Gy (range)	21.8 (20-27)	23.5 (20-27)
Median fractions (range)	1 (1-3)	1 (1-3)
After WBRT, No.	2 (5%)	
Median lesions (range)	1 (1-10)	
Mean total dose, Gy (range)	25.5 (24-27)	
Median fractions (range)	3 (3)	