

Supplementary Table 1. Detailed pathologic diagnosis of included studies

Study	No of SA	Liposarcoma				LMS	MPNST	Other	No of preRT+S	Liposarcoma				LMS	MPNST	Other
		WDLPS	DDLPS	OLPS	Total					WDLPS	DDLPS	OLPS	Total			
De Wever et al., 2013 ²⁷	30	14	16	0	30	0	0	0	29	16	13	0	29	0	0	0
Stucky et al., 2014 ³¹	26	19*	24*	ND	43*	8*	0	12*	37	19*	24*	ND	43*	8*	0	12*
Kelly et al. 2015 ²¹	172	54	63	0	117	49	3	3	32	6	13	0	19	8	1	4
Lane et al., 2015 ¹⁴	45	13	5	2	20	10	0	15	29	2	4	5	11	12	0	6
Ecker et al., 2016 ²⁸	173	ND	ND	ND	173	0	0	0	174	ND	ND	ND	174	0	0	0
Molina et al., 2016 ¹⁹	14	5	7	2	14	0	0	0	27	8	19	0	27	0	0	0
Nussbaum et al., 2016 ^{30‡}	1,126	168	293	0	461	311	8	346	563	83	128	0	211	153	10	189
Chouliaras et al., 2019 ²⁶	294	50	54	12	116	82	3	83	56	3	16	0	19	17	0	20
Bachmann et al., 2020 ²⁴	4	0	4	0	4	0	0	0	6	0	6	0	6	0	0	0
Bonvalot et al., 2020 ¹⁷	133	42	54	4	100	22	ND	11	133	46	51	1	98	16	ND	18
Bredbeck et al., 2022 ²⁵	72	27	17	4	48	17	0	7	17	1	6	1	8	6	0	3
Callegaro et al., 2022 ^{18§}	101	9	51	0	60	14	0	27	101	9	54	0	63	13	0	25
Erstad et al., 2023 ²⁹	249	104	1450	0	249	0	0	0	249	104	145	0	249	0	0	0
Total	2,439	486	709	24	1,392	505	14	492	1,453	278	455	7	914	225	11	265

Abbreviations: No, number; SA, surgery alone; PreRT+S, preoperative radiotherapy combined with surgery; WDLPS, well-differentiated liposarcoma; DDLPS, dedifferentiated liposarcoma; OLPS, other liposarcoma; LMS, leiomyosarcomas; MPNST, malignant peripheral nerve sheath tumors; ND, not described.

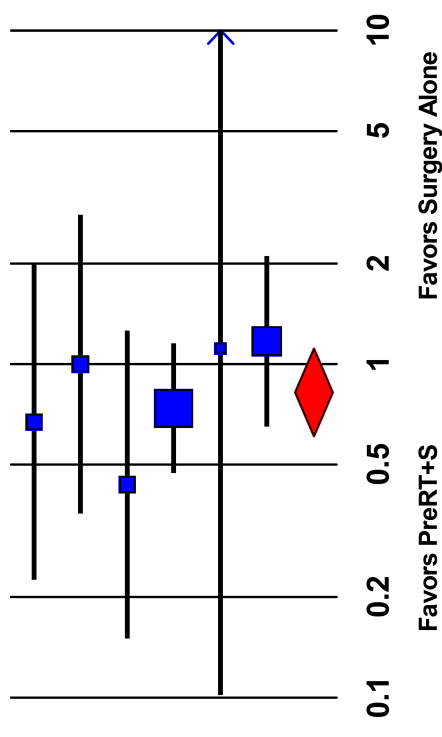
*Total number of both groups.

Study name	Alive / Total		Statistics for each study			
	Surgery Alone	PreRT+S	Odds ratio	Lower limit	Upper limit	Z-Value p-Value
De Wever et al., 2013	18 / 30	20 / 29	0.670	0.227	1.976	-0.725 0.468
Stucky et al., 2014	16 / 26	22 / 37	1.000	0.359	2.784	0.000 1.000
Lane et al., 2015	27 / 45	22 / 29	0.435	0.151	1.252	-1.543 0.123
Ecker et al., 2016	104 / 173	117 / 174	0.738	0.475	1.145	-1.356 0.175
Molina et al., 2016	13 / 14	25 / 27	1.114	0.103	12.097	0.088 0.930
Bonvalot et al., 2020	106 / 133	102 / 133	1.171	0.655	2.094	0.532 0.595
Pooled			0.821	0.607	1.109	-1.285 0.199

Heterogeneity: $\text{Chi}^2 = 3.384$, $\text{df} = 5$ ($P = 0.641$), $I^2 = 0\%$, $T^2 = 0.00$

Test for overall effect: $Z = 1.285$ ($P = 0.199$)

Odds ratio and 95% CI
of 5-year Survival



Supplementary Figure 1. Forest plots of overall survival. In the preoperative radiotherapy combined with surgery (preRT+S) group, overall survival tended to be longer in patients with retroperitoneal sarcoma, liposarcoma, and the subgroup of patients with well-differentiated liposarcoma and grade 1–2 dedifferentiated liposarcoma (WDLPS and G1-2DDLPS). However, in all comparisons, the difference in overall survival was not significant.