

# Outcomes after second relapse of retroperitoneal sarcoma

Winan van Houdt – Alessandro Gronchi – Chandrajit Raut – Rebecca Gladdy

Dario Callegaro – Marco Fiore

Rosalba Miceli - Francesco Barretta

# Background

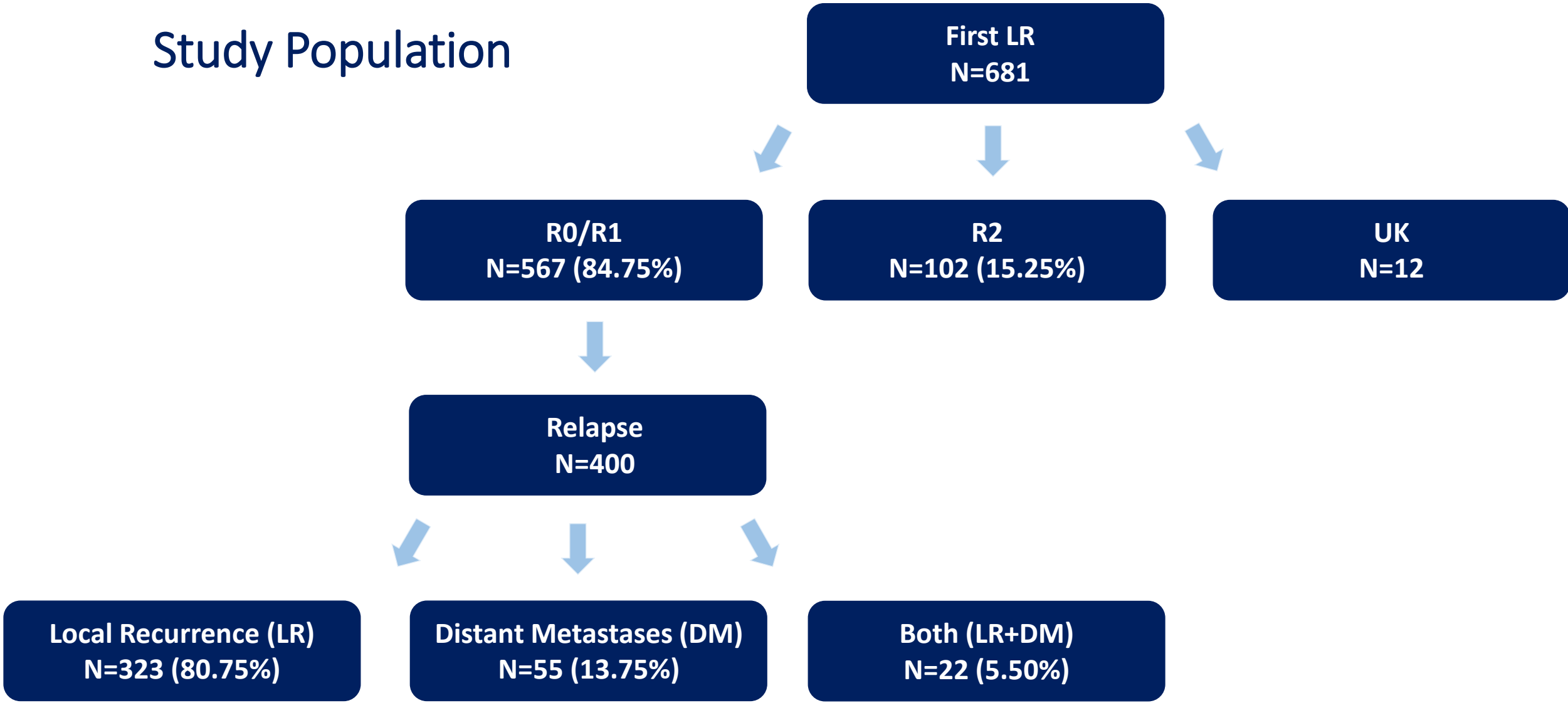
Recent publication: Role of surgery for first relapse in locally recurrent RPS with prognostic nomogram from TARPSWG lead by Raut et al. in Clinical Cancer Research, online Feb 5 2019

Next question: What is the outcome after second recurrence in this cohort of patients from 22 centers?

Primary outcome: OS – time from second relapse to death all causes

Secondary outcomes: DSS, CCI of third event (LR or DM) by competing risk

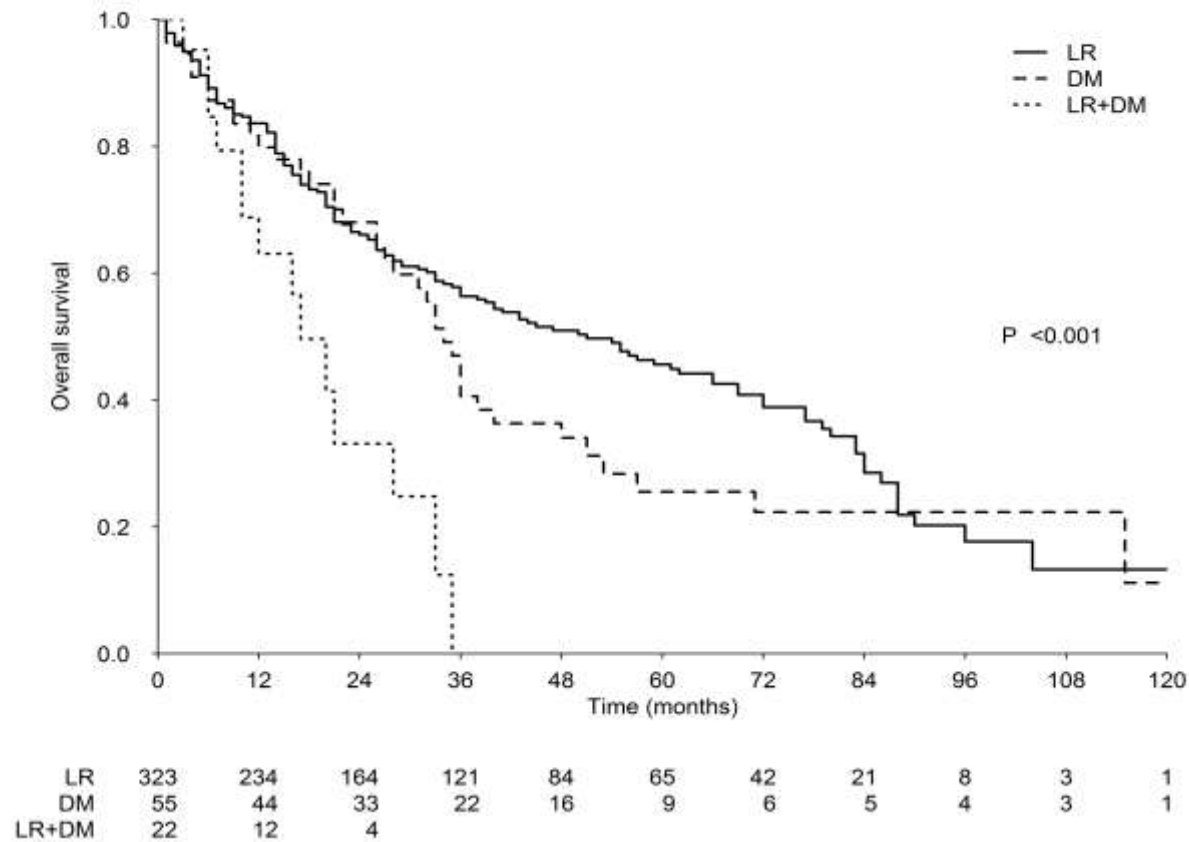
# Study Population



**TABLE 1. Demographic, Clinicopathological, and Treatment Characteristics of the Three Recurrent Disease Groups**

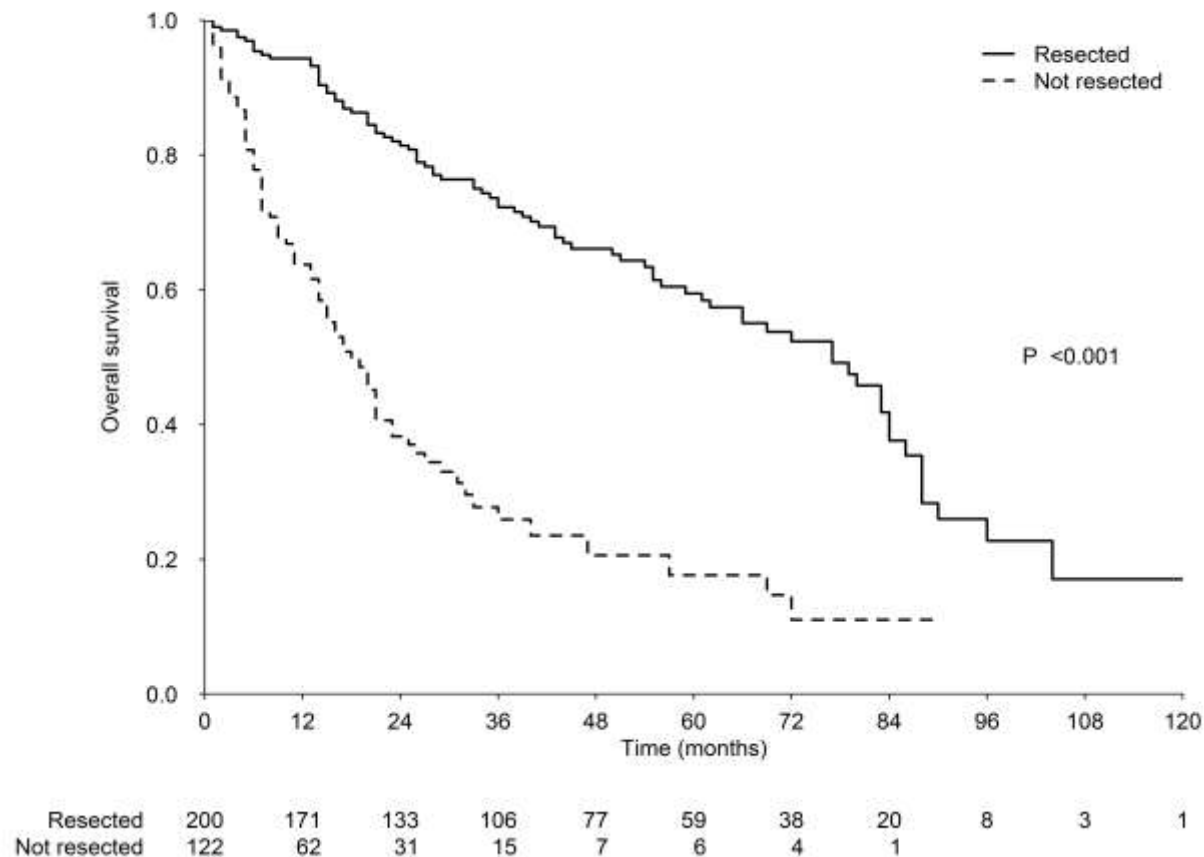
Characteristic	LR	DM	LR+DM
Total patients, No.	323	55	22
At the time of surgery for the primary tumor			
Patient age, median (IQR), y	56 (47-64)	52 (47-65)	59 (52-64)
Sex, No. (%)			
Female	159 (49.2)	34 (61.8)	10 (45.5)
Male	164 (50.8)	21 (38.2)	12 (54.5)
Histologic subtype, No. (%)			
WDLPS	100 (31.0)	2 ( 3.6)	3 (13.6)
DDLPS	149 (46.1)	16 (29.1)	12 (54.5)
LMS	30 ( 9.3)	24 (43.6)	0 ( 0.0)
MPNST	10 ( 3.1)	1 ( 1.8)	1 ( 4.5)
SFT	1 ( 0.3)	2 ( 3.6)	1 ( 4.5)
Other	33 (10.2)	10 (18.2)	5 (22.7)
Follow-up after second recurrence, median (IQR), mo	50 (26-81)	71 (48-102)	31 (14-NA)

# Overall survival after 2nd relapse



- No survivors with LR and DM
- Patients continue to fail locally or distally

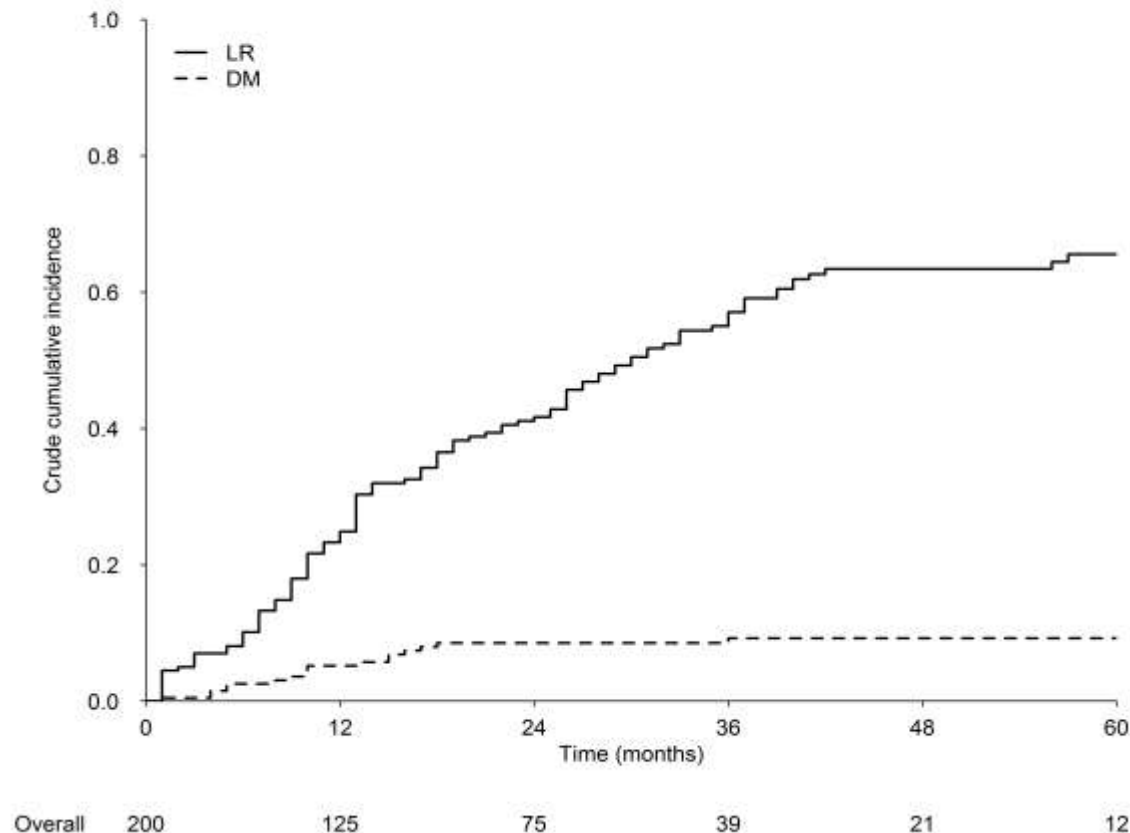
# OS for resected patients and not resected patients with local recurrence only at second relapse



**TABLE 2. Multivariable Cox model analysis of variables associated with overall survival in the second local recurrence**

	HR	95% CI	P <sup>a</sup>
<b>Months between surgery and recurrence:</b>			<0.001
32 vs 8 <sup>b</sup>	0.44	0.30-0.65	
<b>FNCLCC grade</b>			0.062
II vs I	1.36	0.78-2.36	
III vs I	1.87	1.08-3.23	
Not available vs I	2.05	1.00-4.23	
<b>Histologic subtype</b>			0.085
DDLPS vs LMS	1.54	0.92-2.58	
WDLPS vs LMS	0.96	0.47-1.95	
Other vs LMS	0.94	0.49-1.80	
<b>Surgery for recurrence: no vs yes</b>	3.25	2.27-4.64	<0.001
<b>Chemotherapy for recurrence: no vs yes</b>	0.95	0.66-1.35	0.761
<b>Radiotherapy for recurrence: no vs yes</b>	0.93	0.58-1.48	0.748
<sup>a</sup> Two-sided Wald test.			
<sup>b</sup> Third vs first quartile.			

# Type of recurrence after surgery for 2nd relapse



% 5-Year CCI, LR (95% CI);  
65.6% (58.5-73.4)

% 5-Year CCI, DR (95% CI);  
9.2% (5.9-14.6)

46 pts: alive without  
recurrence

117 pts: LR

18 pts: DM

19 pts: died

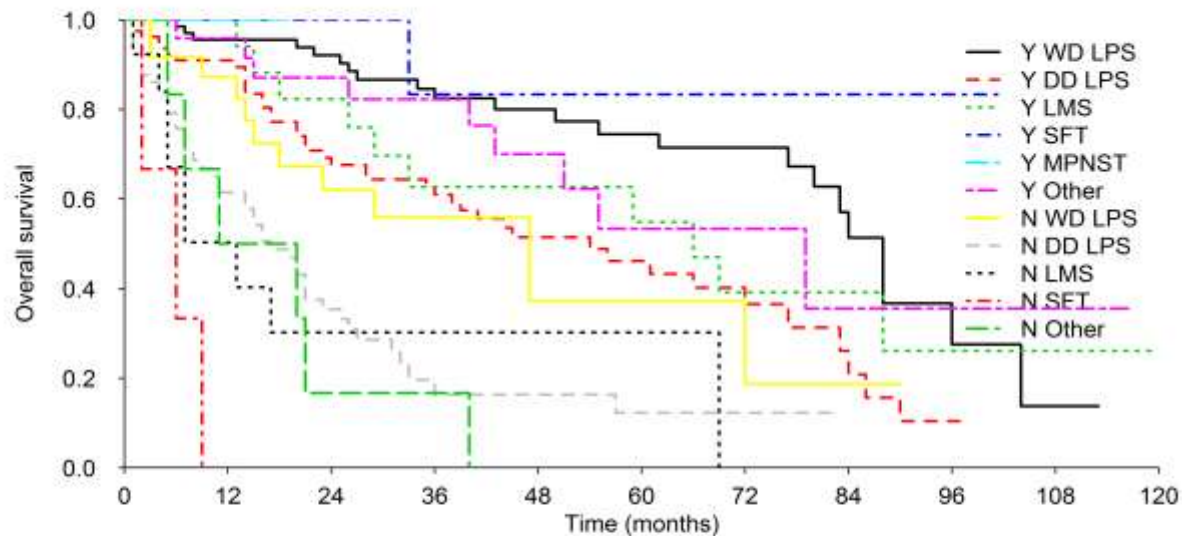
# OS for patient with a 2<sup>nd</sup> local recurrence with or without surgery per histological subtype

Challenging figure!

Limited # SFT, MPNST

WD – not resected still long-term survivors

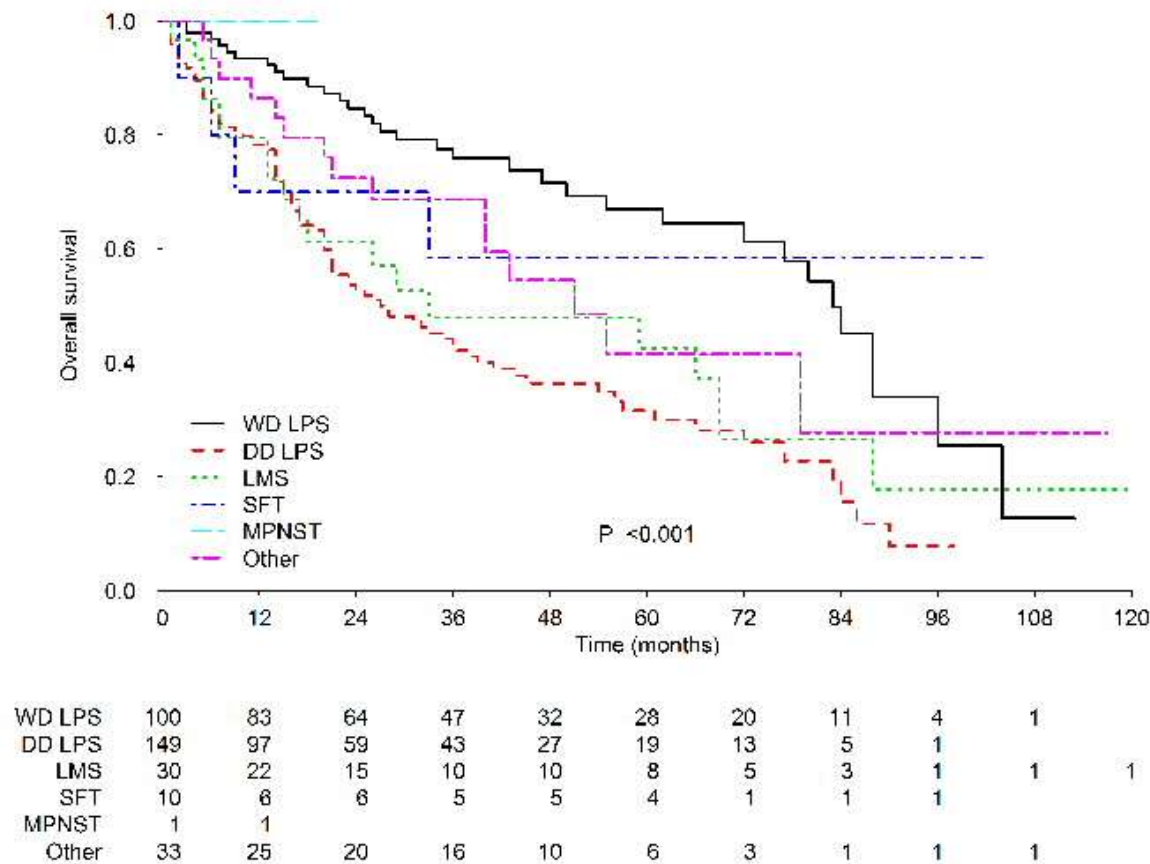
DDLPS, LMS, Other – not resected varying times to demise



Y WD LPS	71	63	52	40	30	26	18	10	4	1
Y DD LPS	80	62	43	37	23	16	11	5	1	
Y LMS	17	17	13	9	9	7	5	3	1	1
Y SFT	7	6	6	5	5	4	1	1	1	
Y MPNST	1	1								
Y Other	24	22	19	15	10	6	3	1	1	1
N WD LPS	29	20	12	7	2	2	2	1		
N DD LPS	68	34	16	6	4	3	2			
N LMS	13	5	2	1	1	1				
N SFT	3									
N Other	9	3	1	1						



# OS for patient with a 2<sup>nd</sup> local recurrence per histological subtype



# Summary:

- Histologic subtype associated with patterns of failure LR vs DM, (not surprising!)
- No survivors with LR and DM
- Data can't comment on: use of pre-op chemo (type used), indications for RT, sites of metastasis