

Major vascular resections in the surgical treatment of retroperitoneal sarcoma

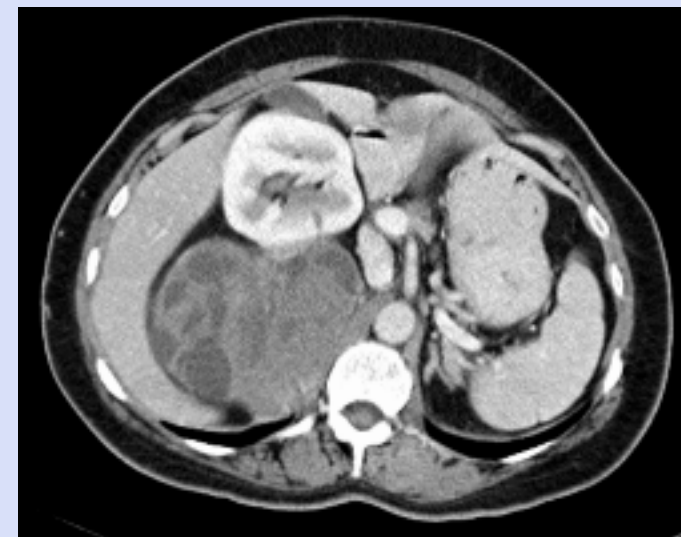
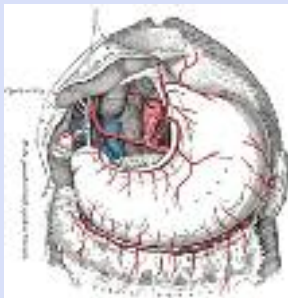
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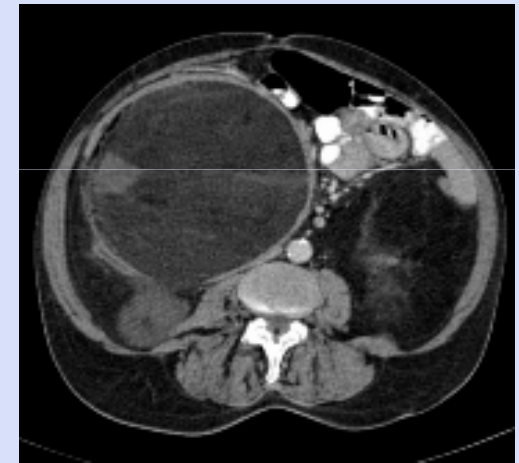
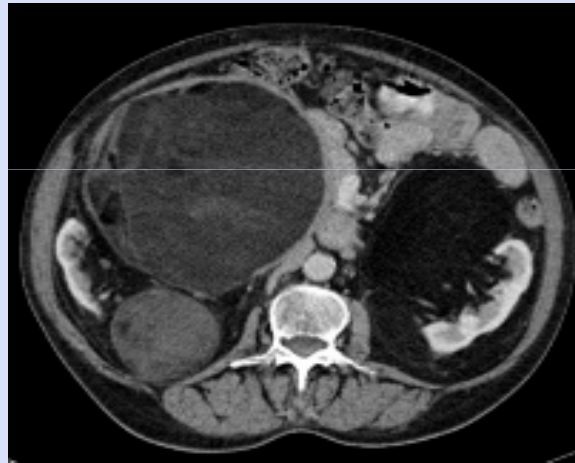
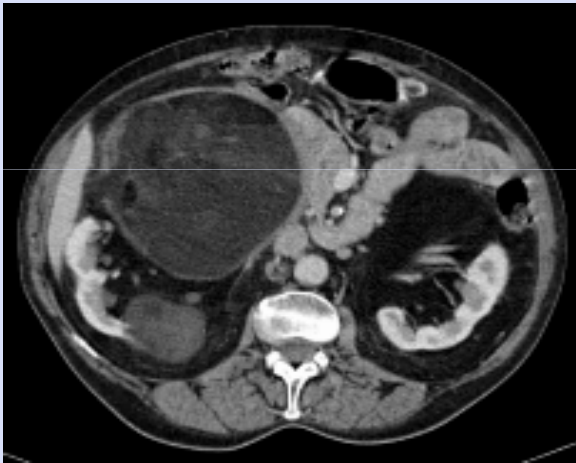


Limiting factors for complete resection

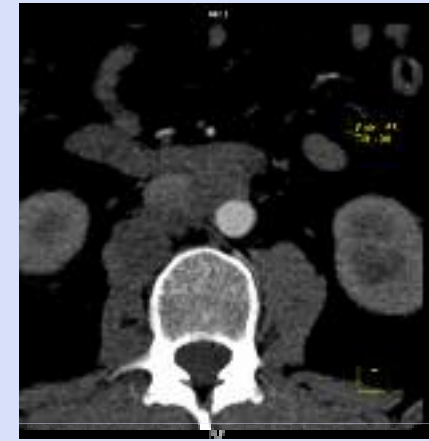
- ❑ Vital organs
- ❑ Major vascular structures
 - IVC, Aorta,
 - Major Branches (SMA, Coeliac Axis)



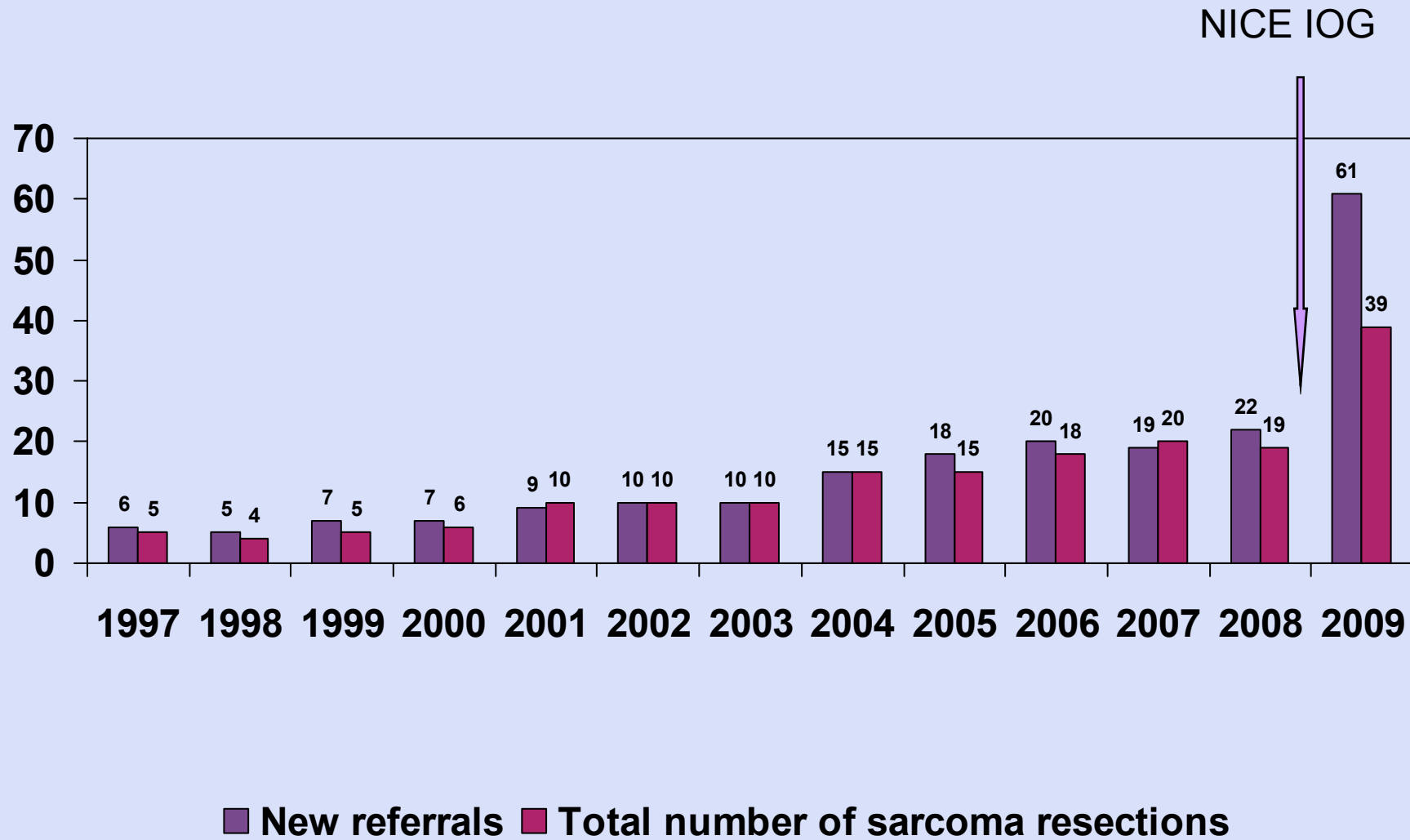
IVC involvement



Aortic involvement

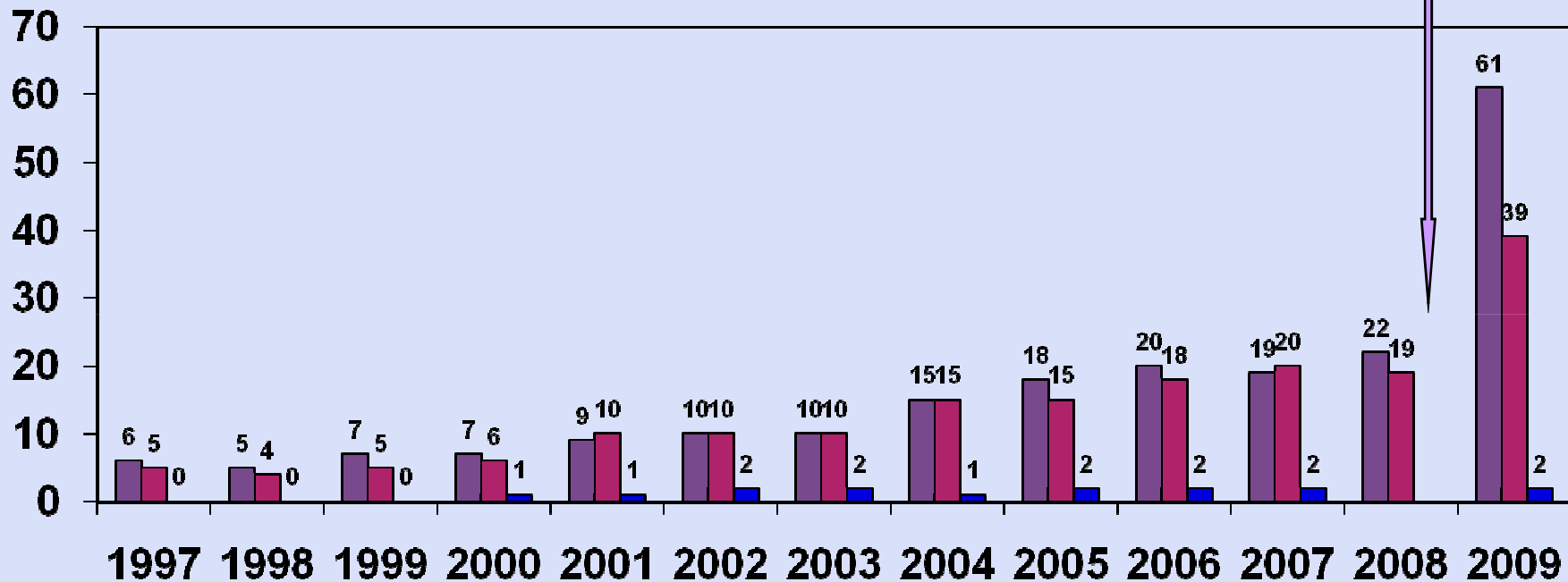


RP Sarcoma Referrals/Resections



Vascular resections

NICE IOG



- New referrals
- Total number of sarcoma resections
- Major vascular resections

Patient pathway

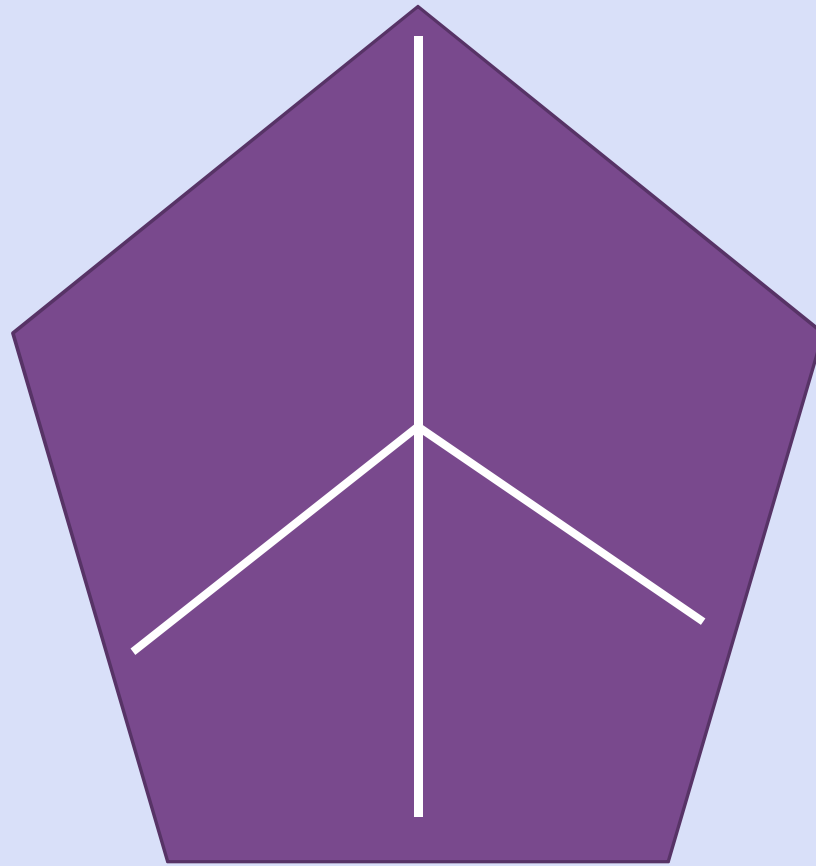
- All patients referred centrally
- Discussed in MDT setting (within 1 week of referral)
 - Previous imaging/ histology reviewed
 - Decision to biopsy/re-biopsy
 - Indeterminate lesions
 - Need for pre-op Rx
 - Surgical risk/benefit
 - Inconclusive outside biopsy
 - Plan surgery
 - Seen in Out-patient clinic by 1 of 2 Consultants with Nurse specialist

Patient Pathway

Vascular resections

- Technical details
 - Imaging review
 - Vascular team and radiologists
 - Planning
 - Rehearse the procedure
 - Access/incision
 - Control
 - Enbloc resection of other organs
 - Type of reconstruction
 - Type of grafts

Access



Vascular structures resected

Number of patients n = 15

Number of vascular resections n = 16

*One patient has had simultaneous IVC and aortic resections

- Aorta n = 4*
- Inferior vena Cava n = 7*
- External iliac artery n = 5

Types of grafts used

- IVC was reconstructed
 - bovine pericardium (n=6)
 - composite graft (n=1)
- The aorta
 - Dacron graft (n=3 tube, and n=1 bifurcated)
- EIA
 - Dacron graft (n=5)



Vascular resection group

Gender	Age	Year	Diagnosis	Vascular resection	Resection status	Status	Survival (months)*
F	61	2000	Endometrial stromal tumour	EIA	R1	Deceased	26
M	50	2001	rhabdomyosarcoma	IVC	R0	Disease free	120
M	18	2002	Embryonal sarcoma	IVC	R1	Deceased	8
F	26	2002	Round cell tumour	IVC	R0	Deceased	46
M	30	2003	Sarcoma NOS	EIA	R0	Deceased	27
M	56	2003	Liposarcoma	IVC	R0	Deceased	5
M	66	2004	Liposarcoma	Aorta	R1	Deceased	30
M	32	2005	Liposarcoma	Aorta	R0	Deceased	50
M	68	2005	Sarcoma NOS	EIA	R0	Disease free	48
F	61	2006	Liposarcoma	EIA	R1	Deceased	16
M	62	2006	Synovial	IVC	R0	Deceased	13
F	56	2007	Liposarcoma	Aorta	R1	Deceased	4
M	62	2007	Leiomyosarcoma	EIA + CIA	R0	Disease free	30
F	66	2009	Myelolipoma	IVC	R0	Deceased	post-op death
M	38	2009	Myoepithelioma	Aorta + IVC	R0	Disease free	6

Hospital stay [median (range)] = 26 (17 – 40 days)

Vascular resection group

Short term Outcome

- No specific vascular complications
- Other complications n= 5 (33%)
 - Chest sepsis needing respiratory support n=2
 - Intestinal fistulation needing re-operation n=1
 - Intra-abdominal collection managed by percutaneous drainage n=1
 - Chyle leak managed conservatively (TPN) n =1
- Mortality n = 1 (6.66%)
 - post-operative day 31

Vascular resection group

Long-term Outcome

n=14, 1 excluded (post-operative death)

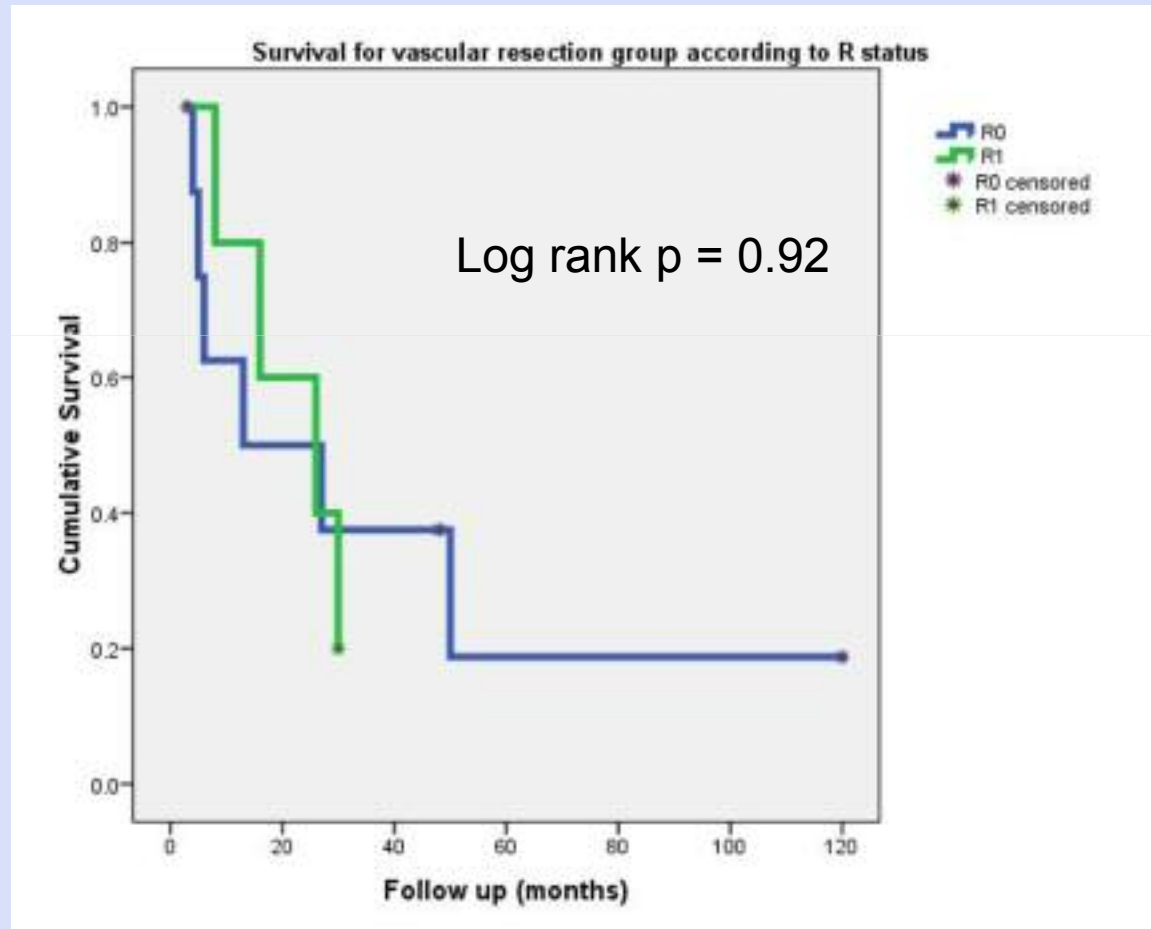
- Overall survival for the group
 - 44.14 (18.63 – 69.65) months

- R0; n=9
 - 4 of these are currently disease free
 - 38.75 (7.61 – 69.88) months

- R1; n=5
 - All these have recurred locally and systemically
 - 22 (13.22 – 30.77) months

All survival figures are Mean (CI) in months

Vascular resection group R0 vs R1

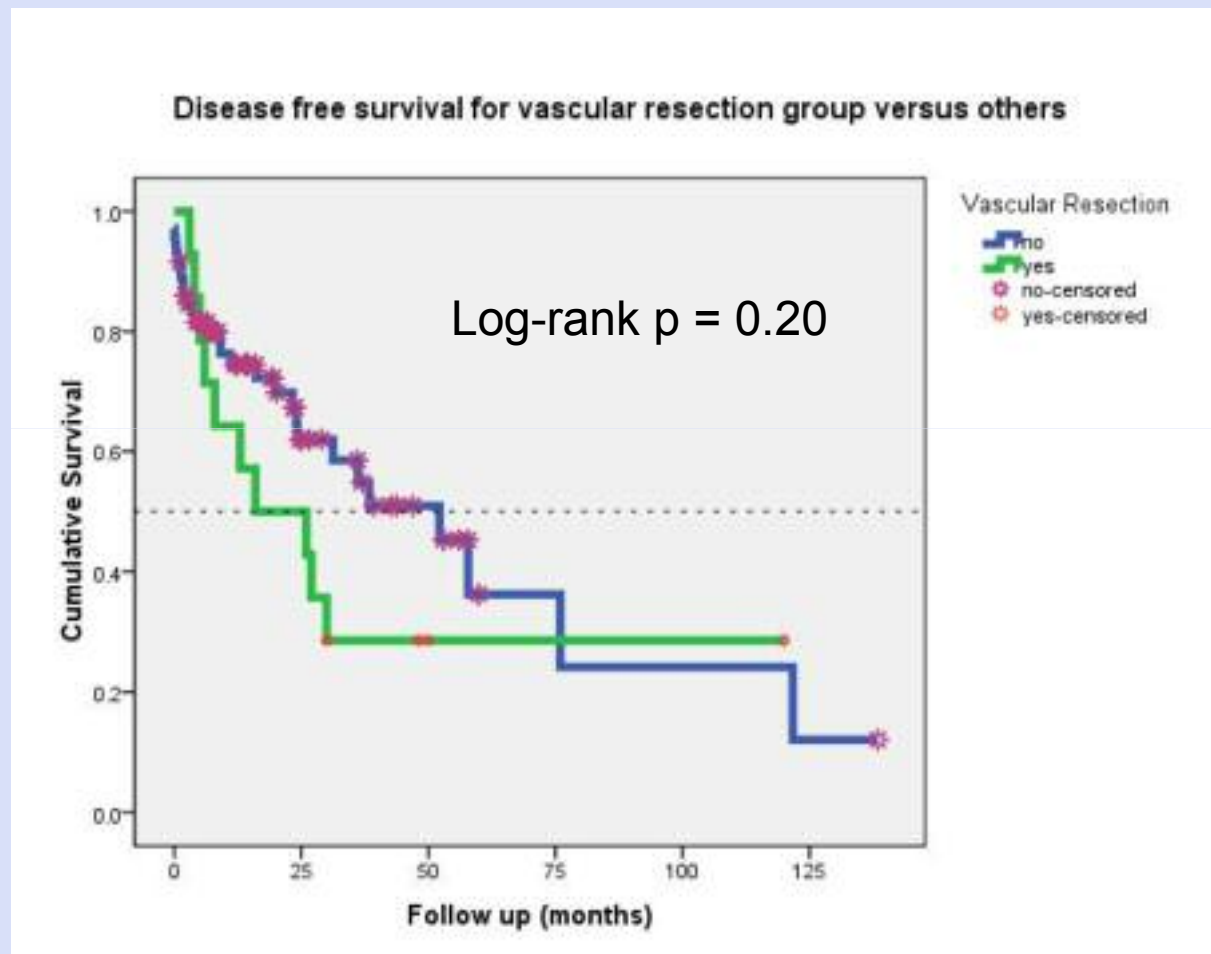


Overall results

(GIST excluded)

- 160 resections in 127 patients
- Overall mortality 6 (3.04%)
 - 30-day n=4
 - 90-day n=1
- Disease free survival
 - Mean (95% CI) 52.31 (37.31 – 75.31) months

Long-term outcome



Summary

	Number	Mortality n (%)	Complications n (%)	Survival (<i>months</i>) mean (95% CI)
Vascular resection group	15	1 (6.66%)	33.33%	44.14 (18.63 – 69.65)*
Others	127	5 (3.04%)	24.1%	52.31 (37.31 – 75.31)*
				*Log-rank p = 0.20

Peri-operative mortality doubles with major vascular resections

Conclusions

- There does not appear to be a significant difference in survival when a major vascular resection is included
- Although the mortality (1 patient) in our small series is almost double, we feel that achieving R0 resection justifies the risk
 - All current long term survivors belong to the R0 group



Thank you