

The Management of T1 Rectal Cancer in the North East of England

Colorectal Expert Advisory Group Audit Event
6th November 2018

Fadlo Shaban
Sorena Afshar
Deena Harji
On behalf of NoSTRA

NOSTRA
NORTHERN SURGICAL TRAINEES
RESEARCH ASSOCIATION



Rectal Cancer

- 14,000 new cases per annum in the UK
- Stage I disease in 17%
- Traditionally treatment involved resectional surgery
- Other options include local excision and endoscopic management

Aims and Objectives

- To explore the management strategies and outcomes of T1 rectal cancers in the NE
- To compare different modalities of investigation and treatment across the region

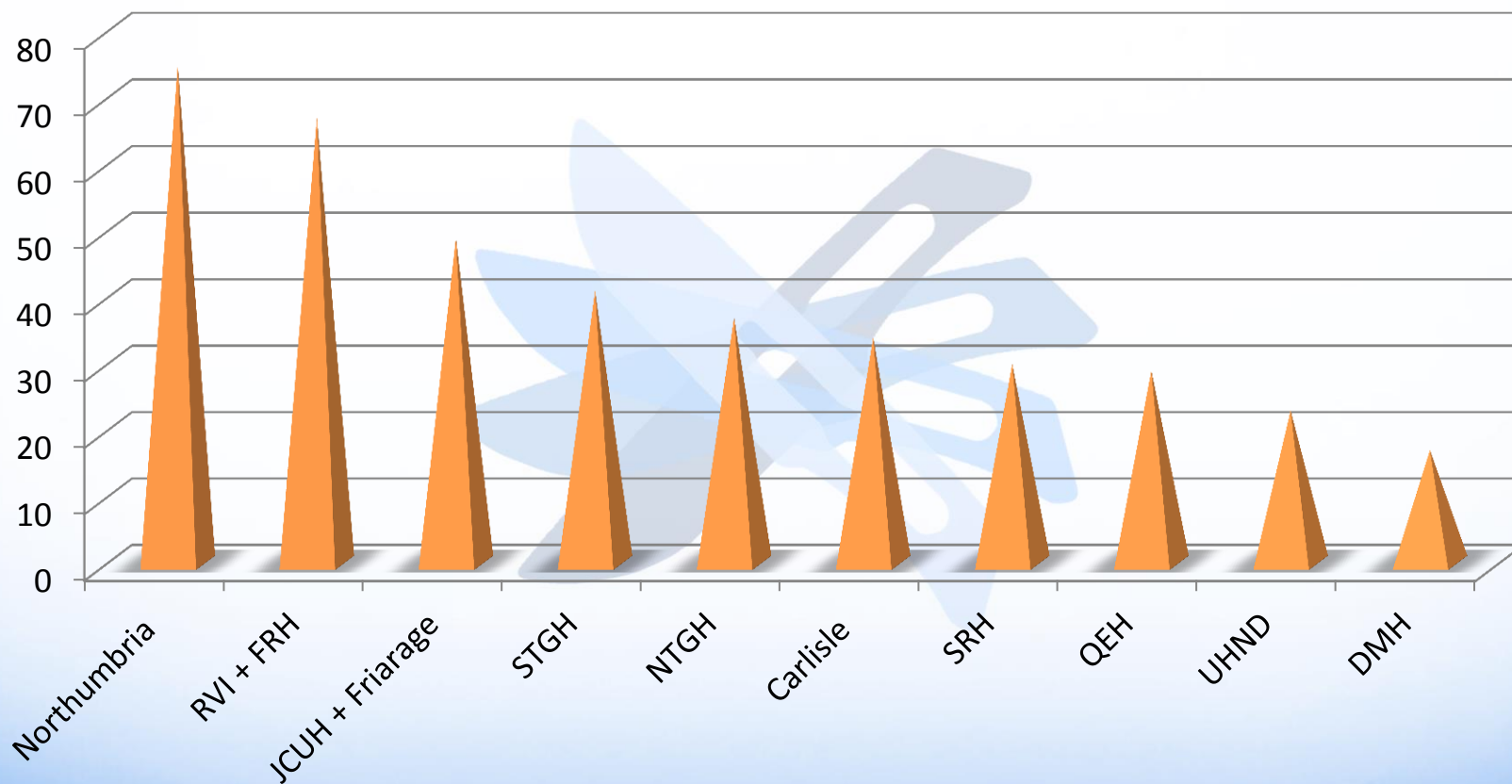
Methods

- Two phase study
 - Organizational Survey
 - Retrospective, multicentre, observational cohort study of all patients with T1 rectal cancer
 - Pathological diagnosis
 - NoSTRA Collaboration for data collection
- Between 1/1/2010 and 31/12/2017

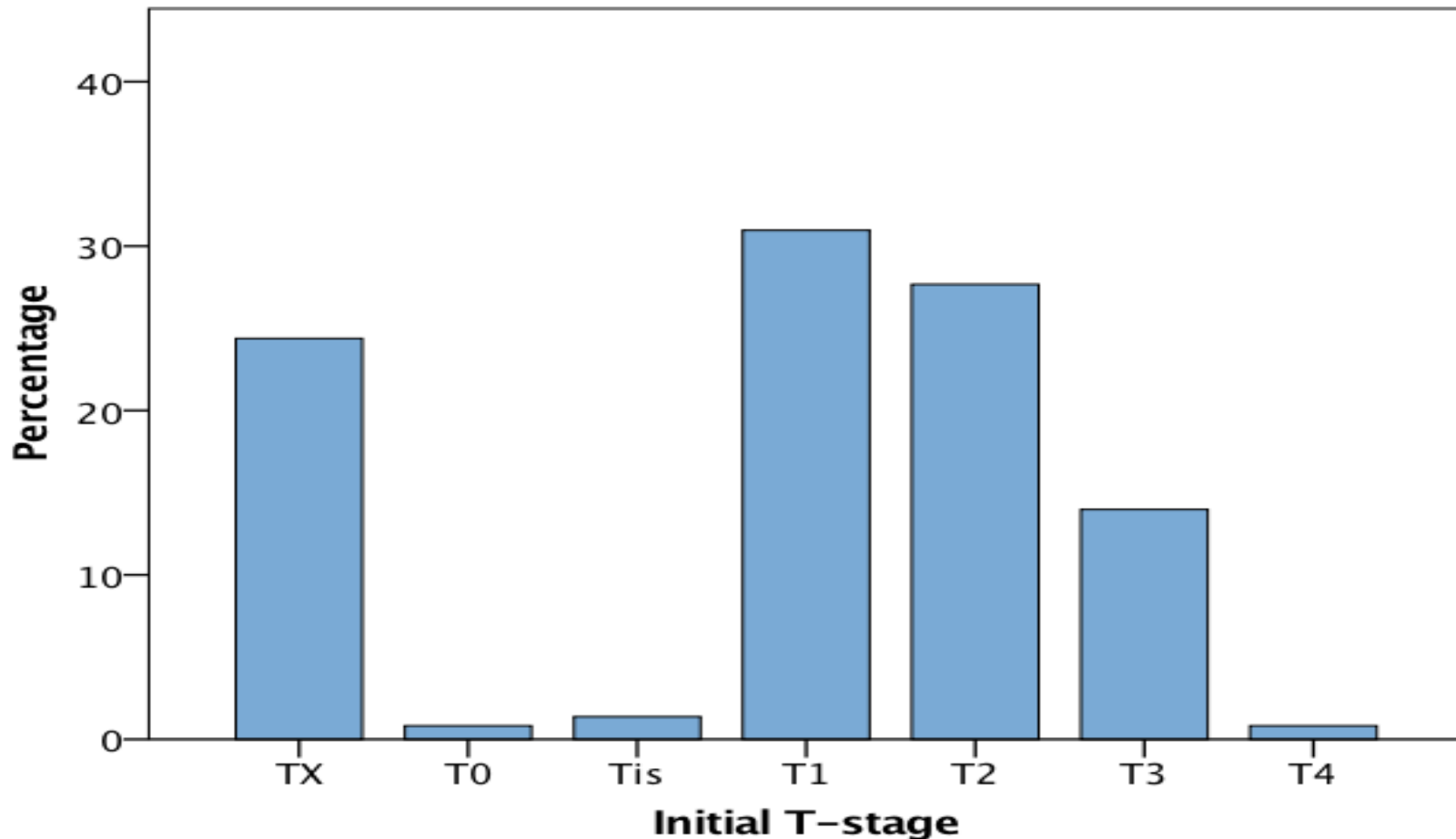
Results

- 13 sites across the North East
- 406 cases of pathological T1 cancers
- Median age 68.4 (range 33.6 to 95.6)
- 35% female

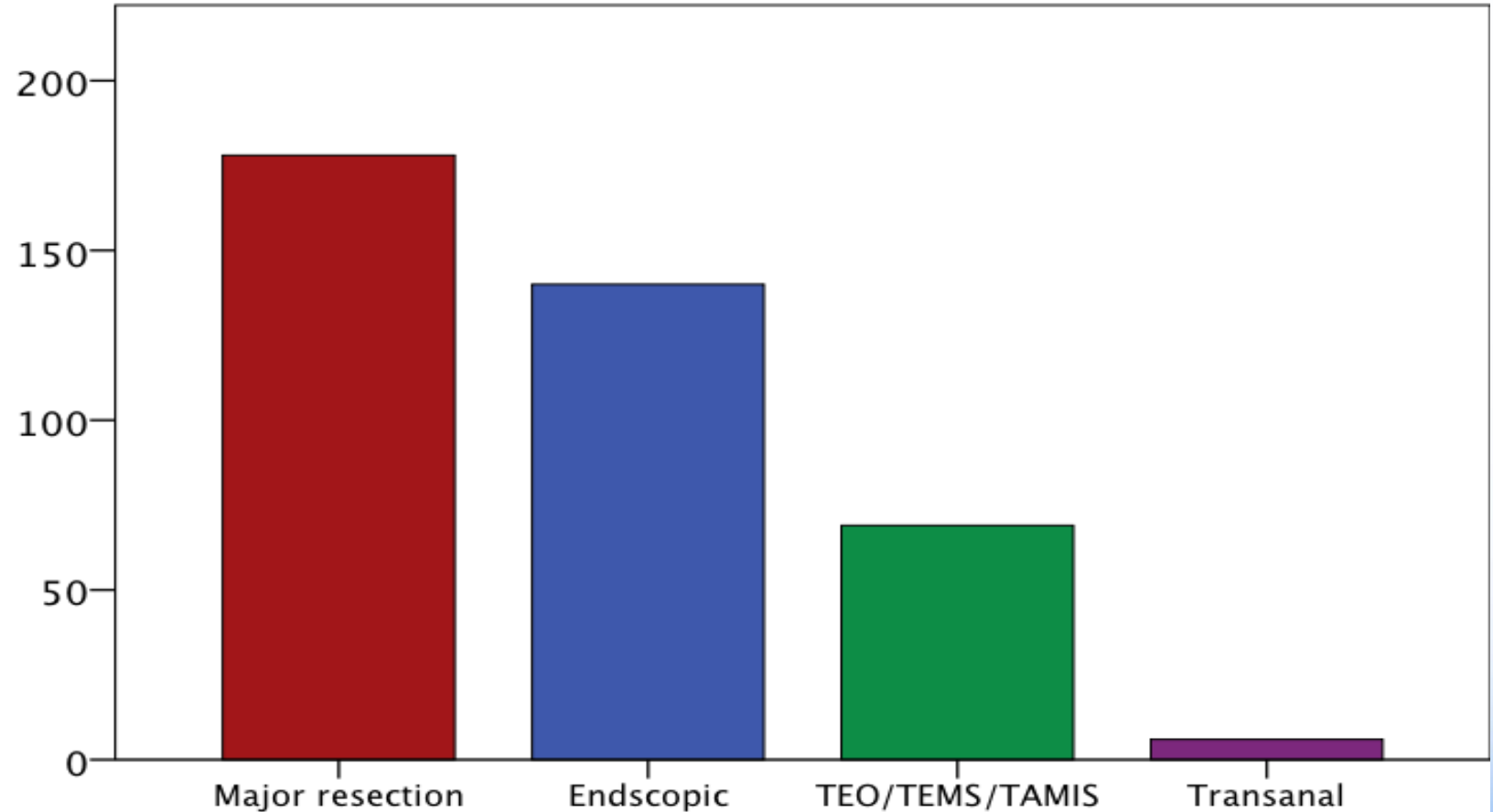
Number of T1 Rectal Cancers Treated between 2010 and 2017 (by site)



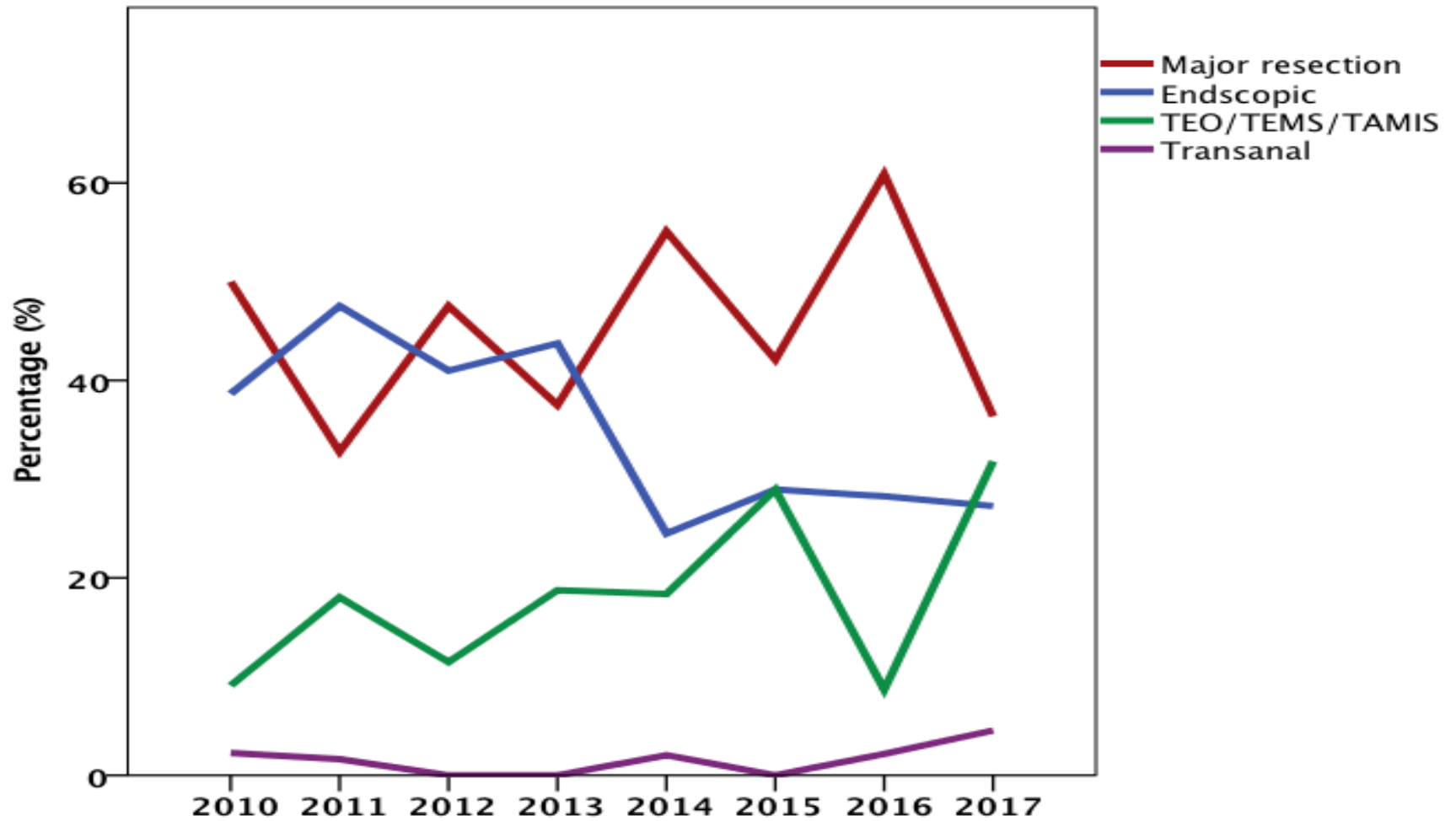
Initial Staging



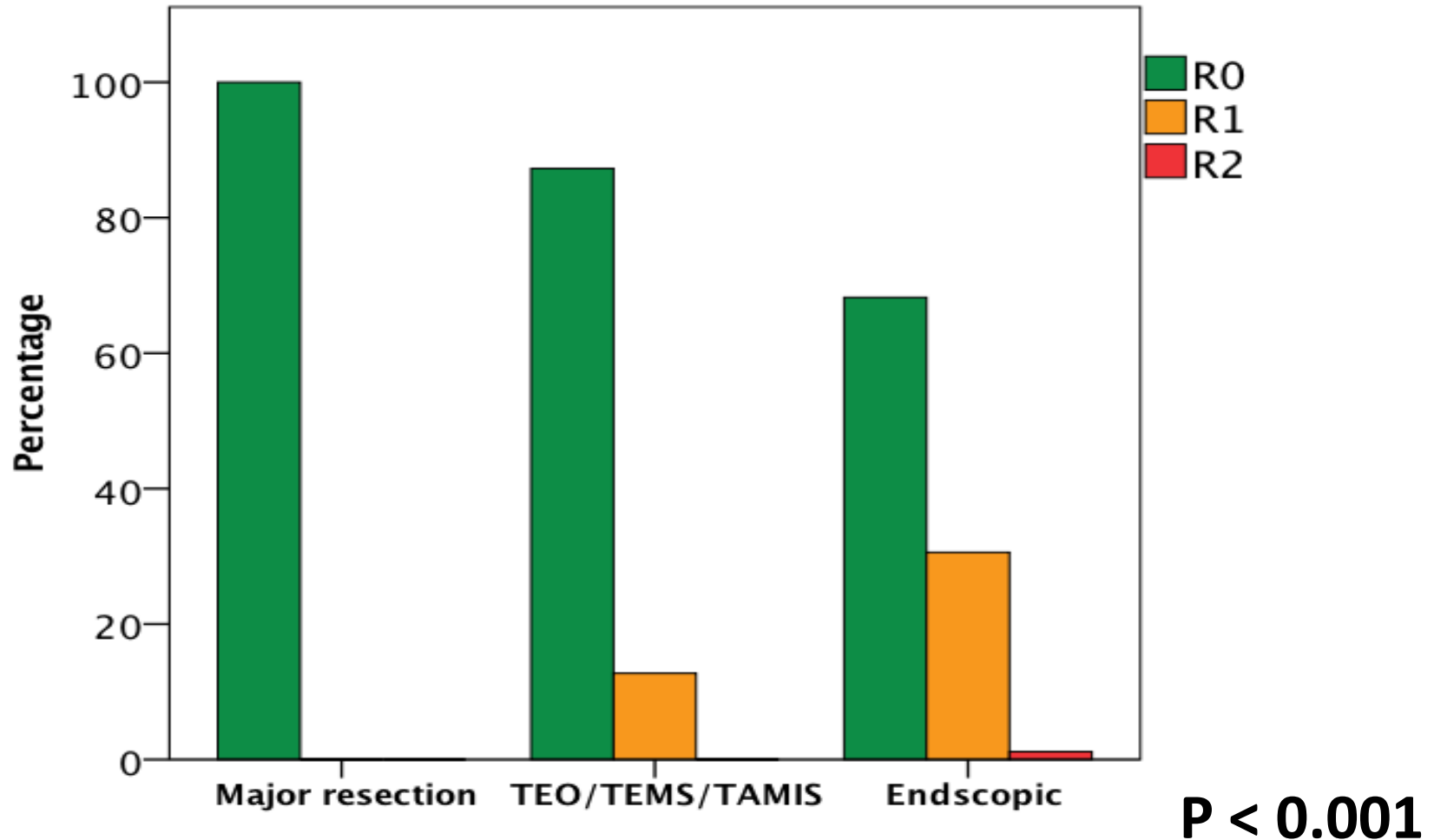
Primary Procedure



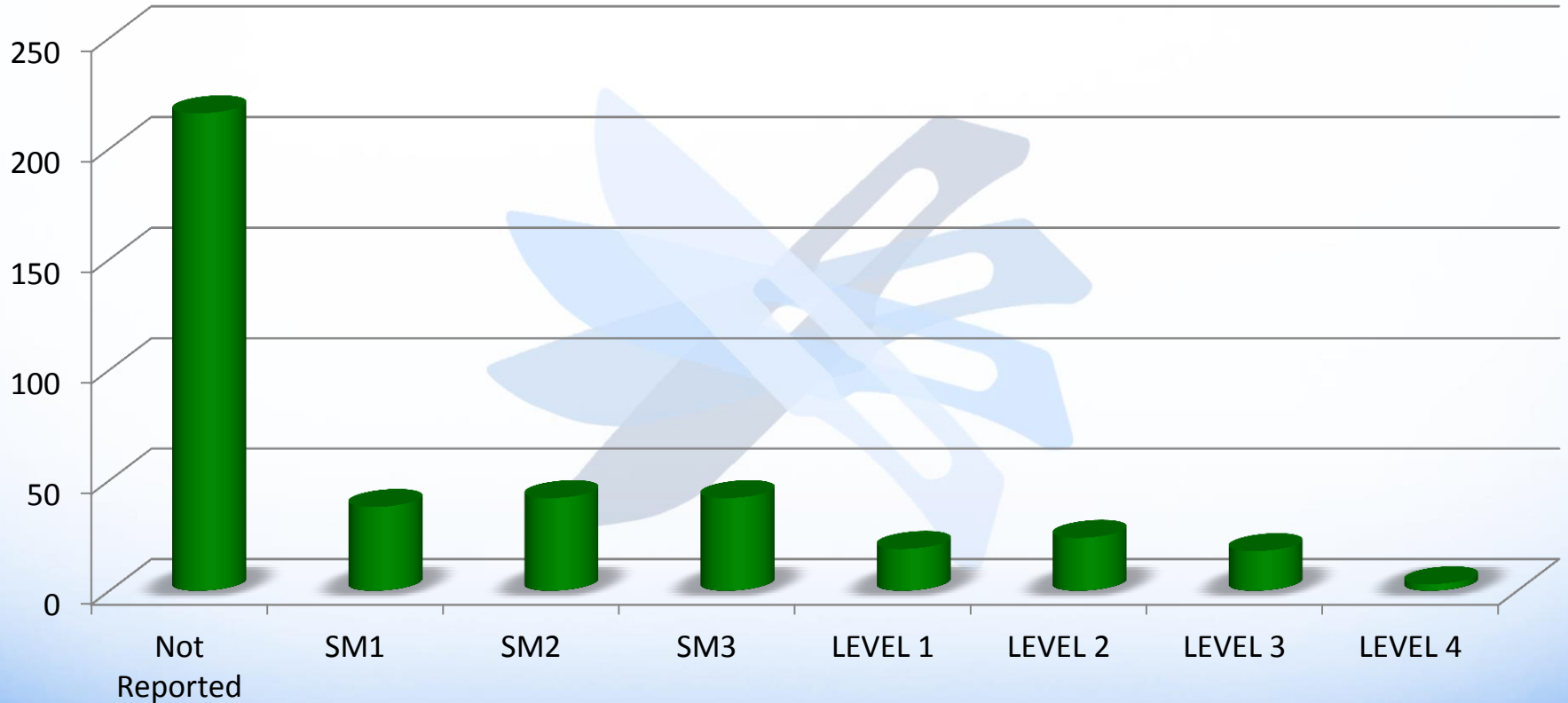
Time Trend



Resection Margins



Kikuchi / Haggitt Classification

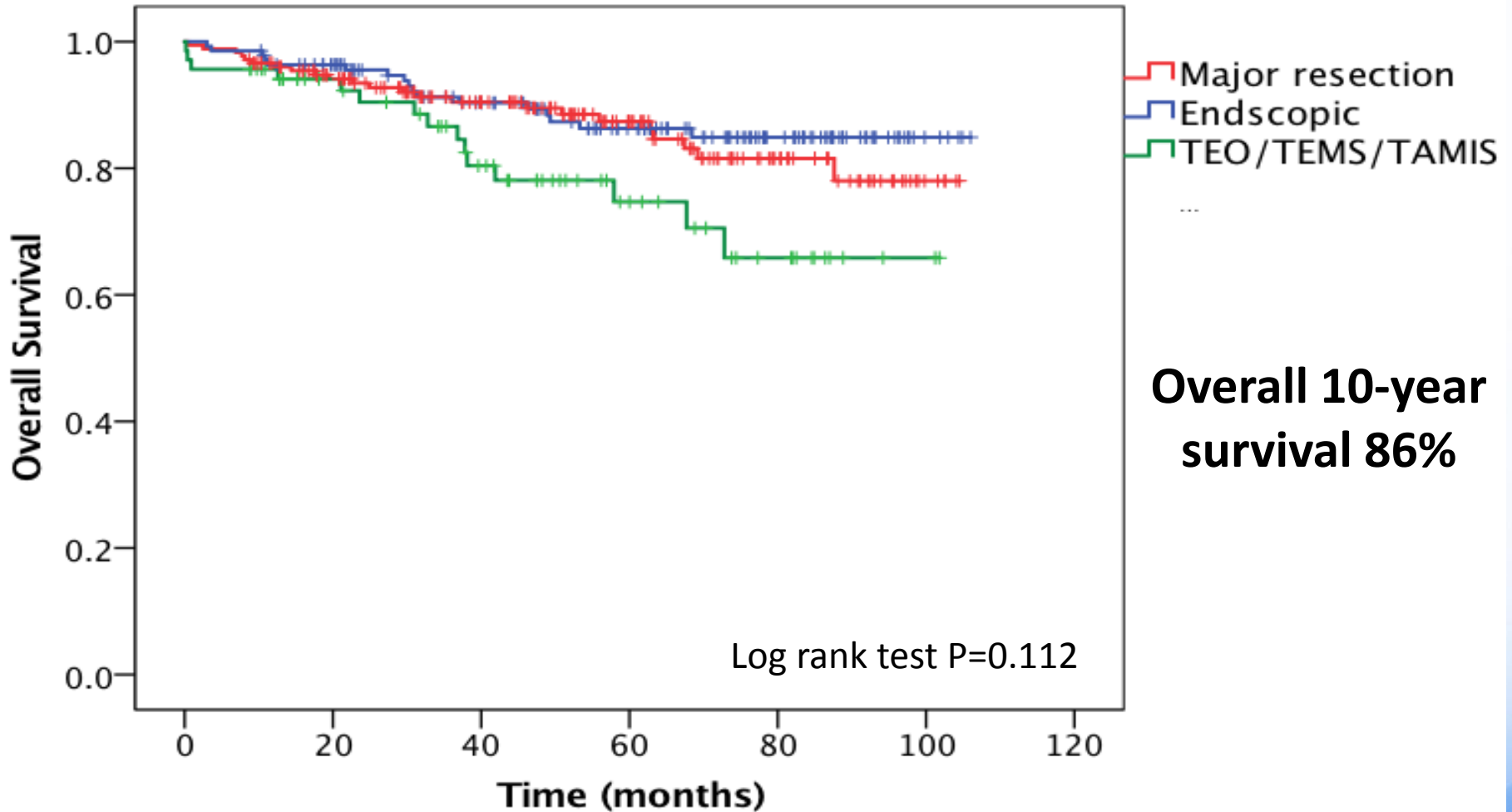


Complications After Primary Procedure

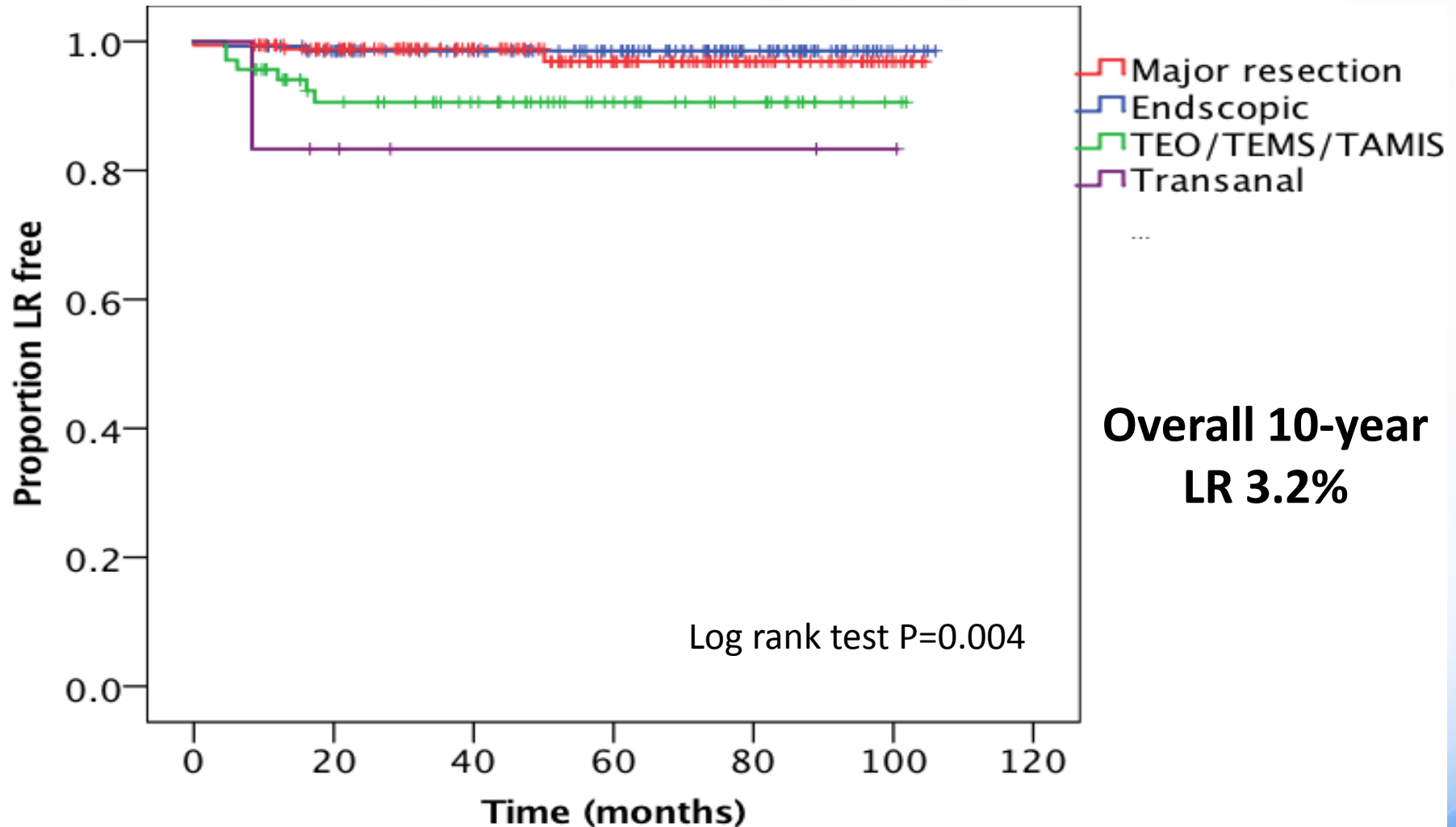
Clavien -Dindo	Major resection N=178	Endoscopic N=140	TEO/TEMS /TAMIS N=69	Trananal N=6	P value
None	66.3%	93.6%	78.3%	83.3%	<0.001*
I	7.9%	0%	1.4%	16.7%	
II	13.5%	0%	10.1%	0%	
III	6.2%	2.9%	2.9%	0%	
IV	6.2%	2.9%	1.4%	0%	
V	0%	0.7%	5.8%	0%	

* Kruskal-Wallis test

Mortality



Local Recurrence



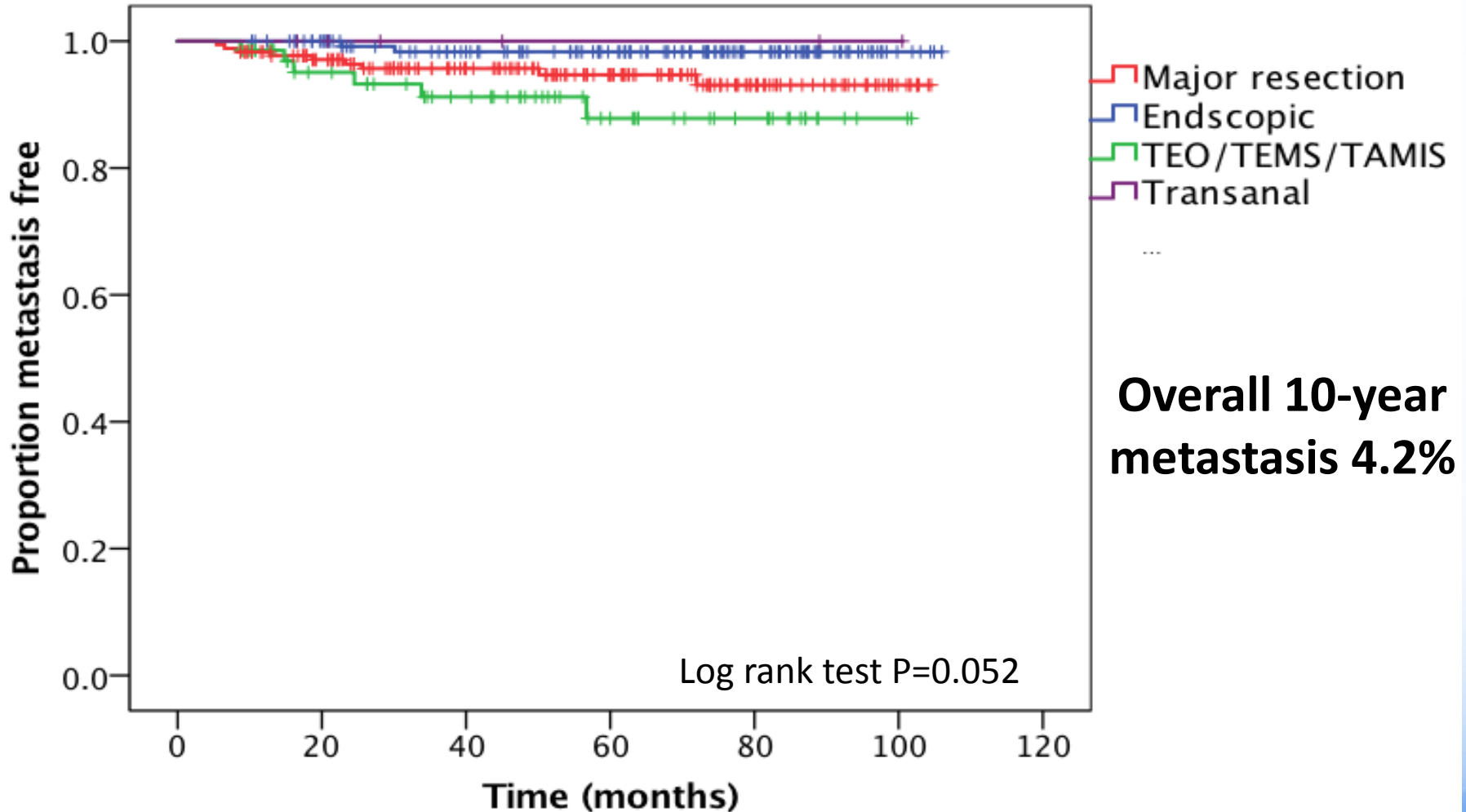
Multivariate analysis of factors associated with Local Recurrence

	P value Univariate *	P value Multivariate †
Age >65	0.182	0.952
Pre-procedure clinical T stage	0.270	0.951
Pre-procedure clinical N stage	0.408	0.999
Primary procedure performed	0.004	0.511
R status	0.111	0.965

* Log rank test

† Cox regression

Metastasis



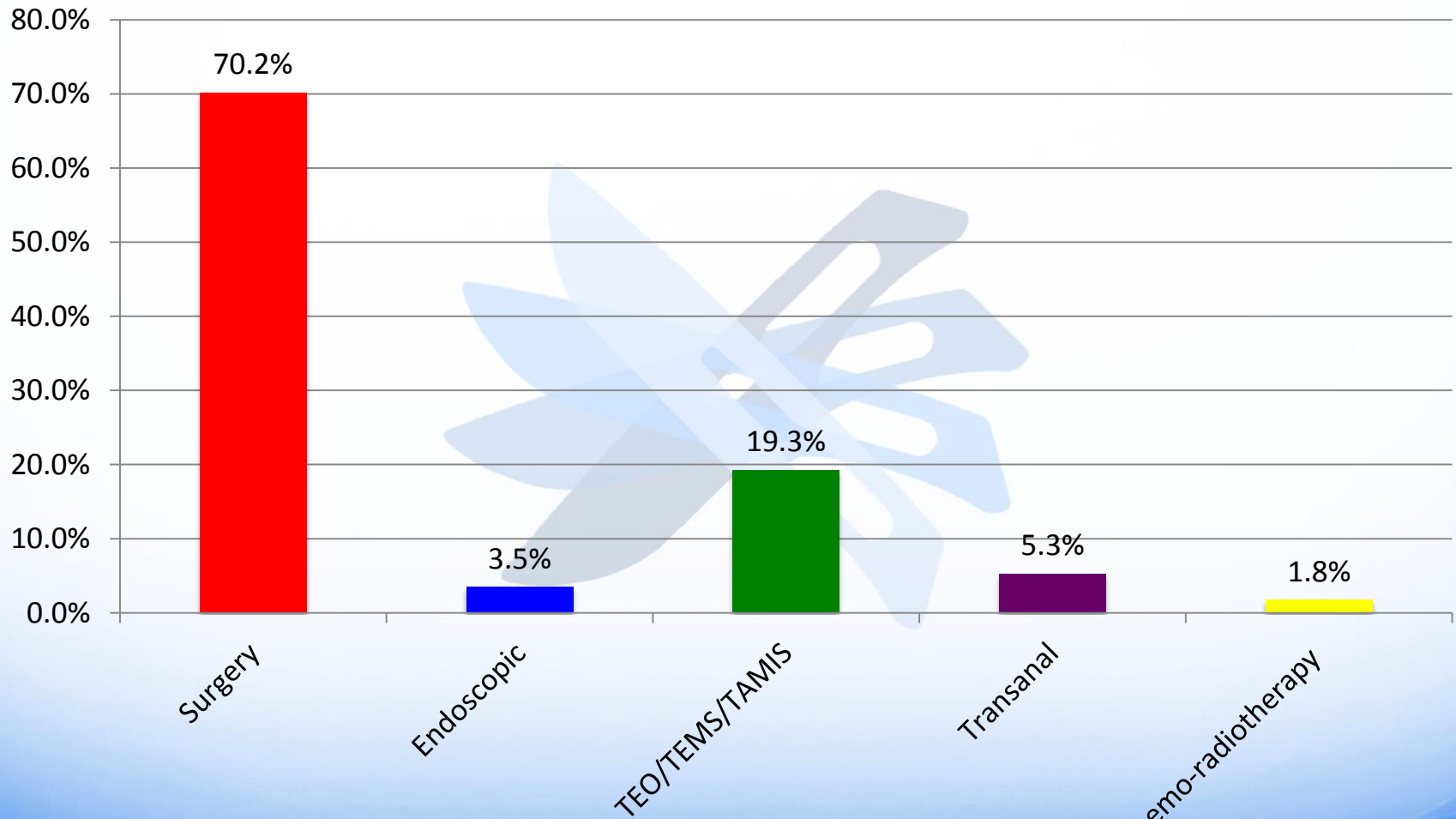
Secondary Procedure



Characteristics of patients needing second procedure

- Primary procedure
 - 63.2% Endoscopic (36/57)
 - R0: 22.2%
 - R1: 63.9%
 - R2: 2.8%
 - NR: 11.1%
 - 36.8% TEO/TEMS/TAMIS (21/57)
 - R0: 47.6%
 - R1: 33.3%
 - NR: 19.0%

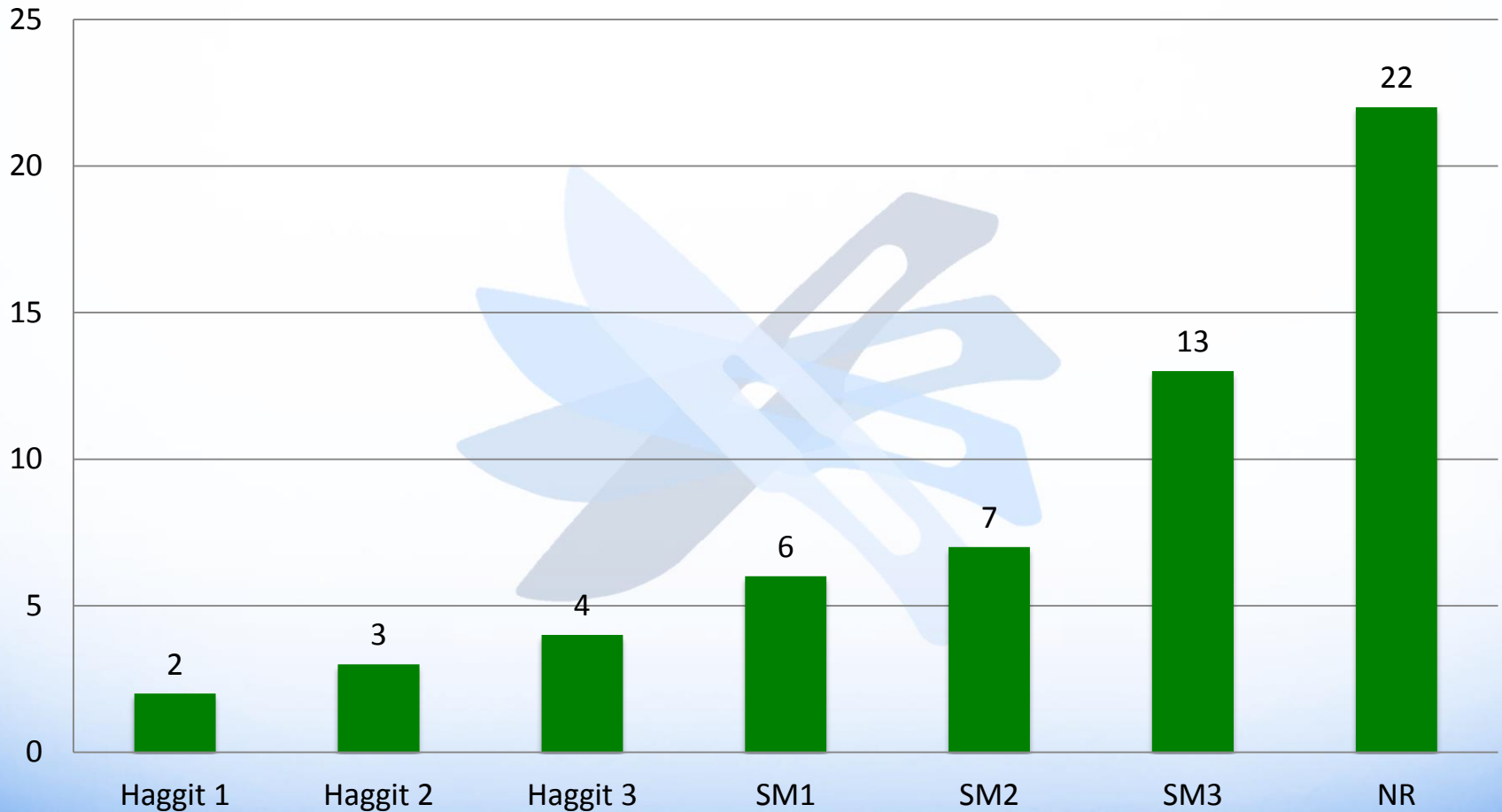
Second Procedure



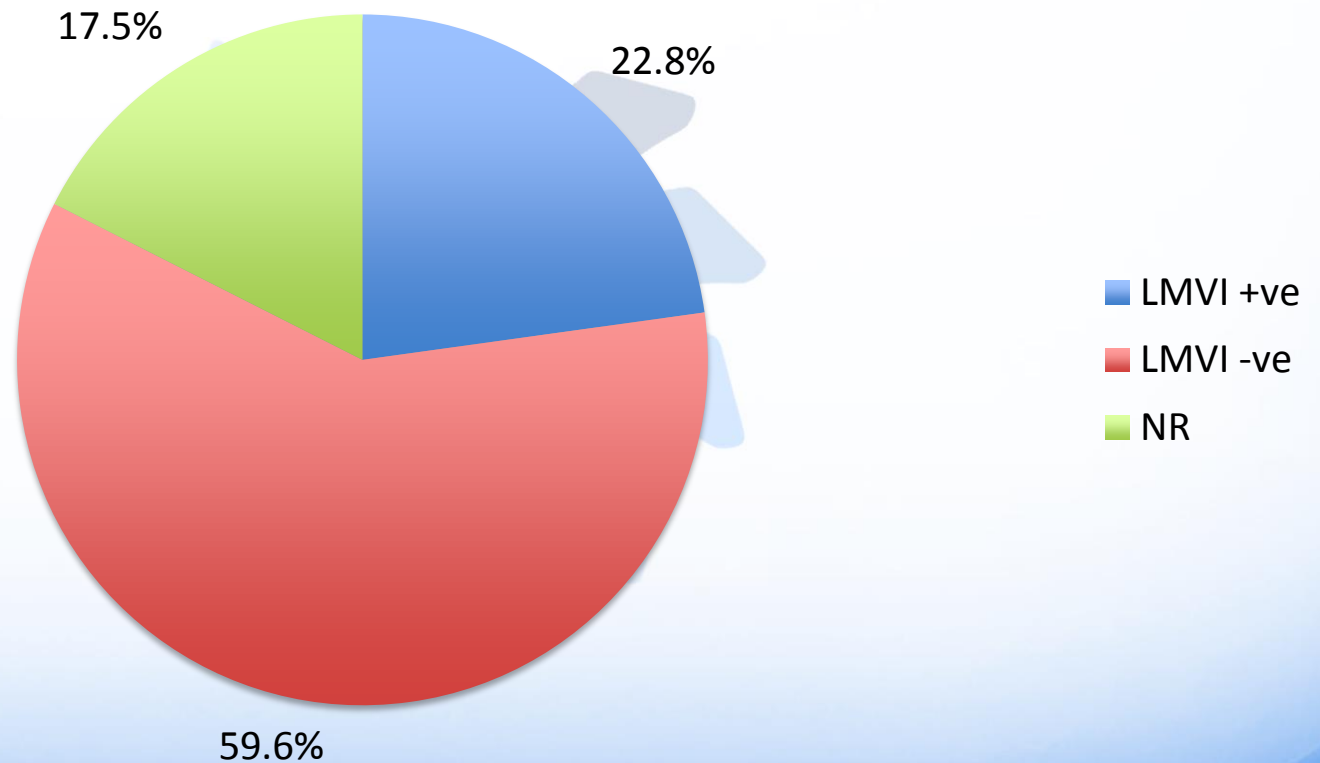
Histology of 2nd Procedure

- T-staging
 - N0: 75.4% (43/57)
 - N1: 8.8% (5/57)
 - N2: 3.5% (2/57)
 - NR/NA: 14.0% (8/57)
 - T0: **38.6% (22/57) – had no residual cancer**
 - 1 had HGD only
 - Tis: 3.5% (2/57)
 - T1: 38.6% (22/57)
 - T2: 1.8% (1/57)
 - T3: 5.3% (3/57)
 - Tx: 1.8% (1/57)
 - NR/NA: 10.5% (6/57)
- R Status
 - R0: 77.2% (44/57)
 - R1: 3.5% (2/57) – 1 TEMS, 1 Transanal
 - NR/NA: 19.3% (11/57)
- N-Staging

Haggitt / Kikuchi



Lympho-vascular Invasion



Characteristics of R0 resection that went on to have a second procedure

- N=18
 - Endoscopic: 8
 - TEO/TEMS/TAMIS: 10
- Morphology
 - Sessile: 11
 - Pedunculated 4
 - NR: 3
- Differentiation
 - Moderate: 12
 - Well: 5
 - NR: 1
- Depth
 - Haggitt 2: 1
 - Haggitt 3: 1
 - Sm1: 4
 - Sm2: 1
 - Sm3: 3
 - NR: 8
- LMVI
 - Positive: 4
 - Negative 11
 - NR: 3

Further Analysis / Limitations

- Further Subgroup/Multivariate analysis
 - By Kikuchi and Haggitt staging
 - LMVI
 - Differentiation
 - Height from verge
 - Size
- Do multivariate analysis for metastasis and overall survival
- Unable to accurately analyse neo-adjuvant chemo/radiotherapy group accurately
- A degree of missing data

Conclusions

- Time trend change – more LE, less endoscopic
- Index procedure correlates with long term oncological outcomes (but not on multivariate analysis).
- Need to explore further
- Patient consent
- Guidance on when to offer second procedure

Collaborators

- Northumbria
 - Mike Jones
 - Oroog Ali
 - Karl Foster
 - Alasdair Mayer
 - Francesca McKee
 - Michael Martin
- RVI/FRH
 - Kiera Hardy
 - Fadlo Shaban
 - Ashleigh Ivy
 - Sophie Graham
 - James Prowse
 - Christie Mellor
 - Kiran Keshvara
 - Sachin Wimalagunaratna
- JCUH/Friarage
 - Nicola McGuire
 - Laura Watson
- South Tyneside
 - Jignesh Jatania



Collaborators

- North Tees
 - Leo Brown
 - Sayhow Teoh
 - Deena Harji
 - Dileep Kumar
 - Niamh McKigney
 - Alexandra Griffiths
- Carlisle
 - Christophe Thomas
 - Catherine Strong
 - Noor Abdul Malek
- Sunderland Royal Hospital
 - Lena Ngu
 - Znar Koshnow
- Gateshead
 - Peshang Abdulhannan
 - Petros Amorginos
 - Justin Green
 - Clara Munro
 - Katherine Leitch
- UHND
 - Dhya El-Leswas
 - Ioannis Rantos
- DMH



