



ID: 18-7357 pTa High grade urothelial bladder cancer: Recurrence, progression pattern and role of second TURBT?

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Background

There is paucity of studies addressing the outcomes of second Transurethral resection of bladder tumour (TURBT) & reporting recurrence and progression in time to event format in “pTaHigh grade” urothelial tumour bladder.

Aims and Objectives

To examine the role of a second TURBT and to generate recurrence and progression data in time to event format

Methods

- **Study design:** Retrospective audit of single institution database.
- **Inclusion criteria:** pTa high grade lesions at first Transurethral resection of bladder tumour (TURBT).
- **Intervention:** Single or Two TURBT
- **Time frame :** 2006- March 2015
- **Outcomes:** Positive findings in Second TURBT after complete first TURBT. Comparison of recurrence free survival in those with Single TURBT vs Two TURBT. Recurrence Data in time to event format.
- **Definition of variables:** **Multiple tumours:** ≥ 2 tumours. **Complete first TURBT:** TURBT with no gross residual tumour at the end of first resection and presence of detrusor muscle reported in the histopathology specimen.

Results

Figure 1. Study flow: STROBE diagram

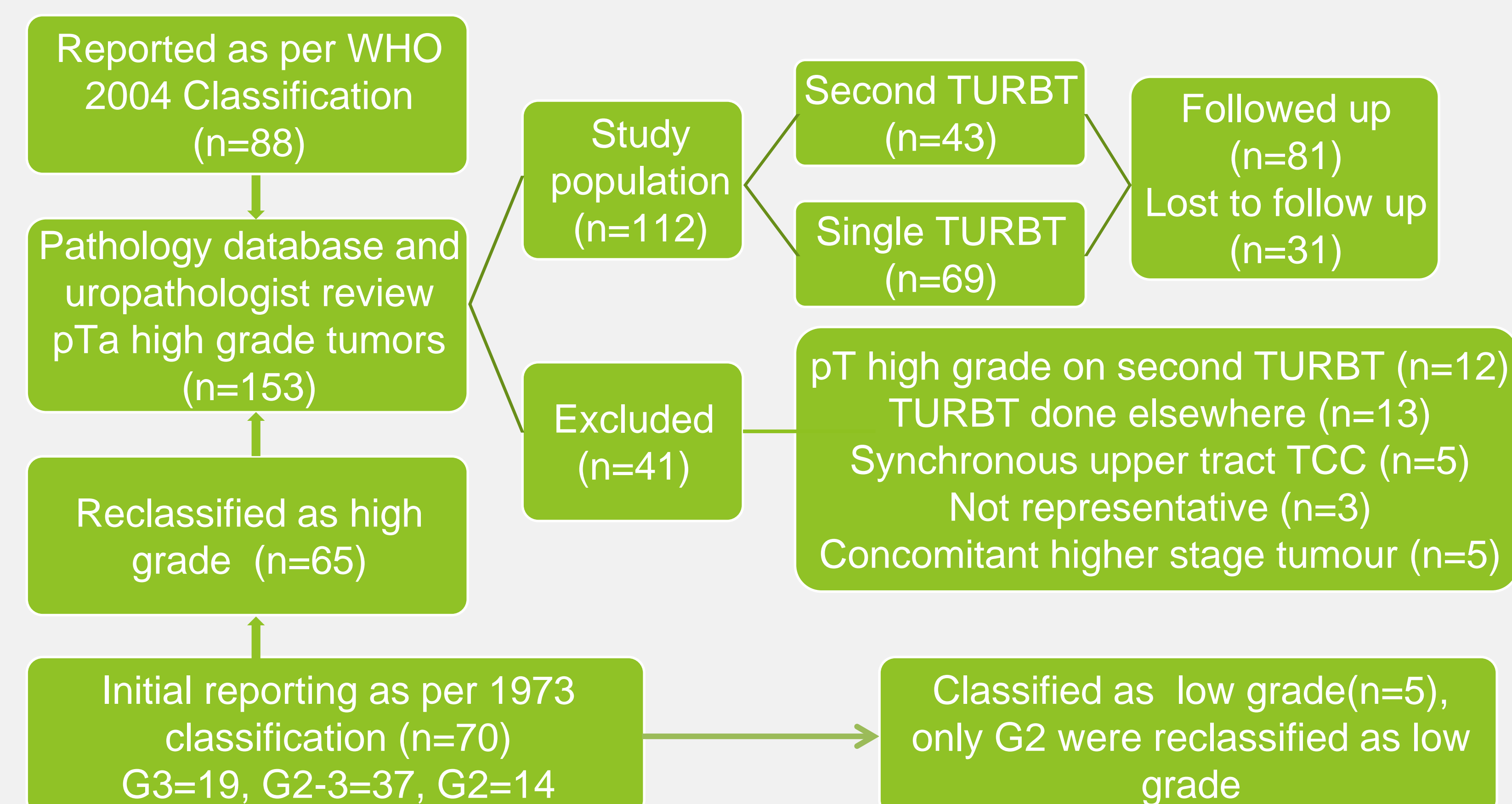


Figure 2. Findings after complete first TURBT

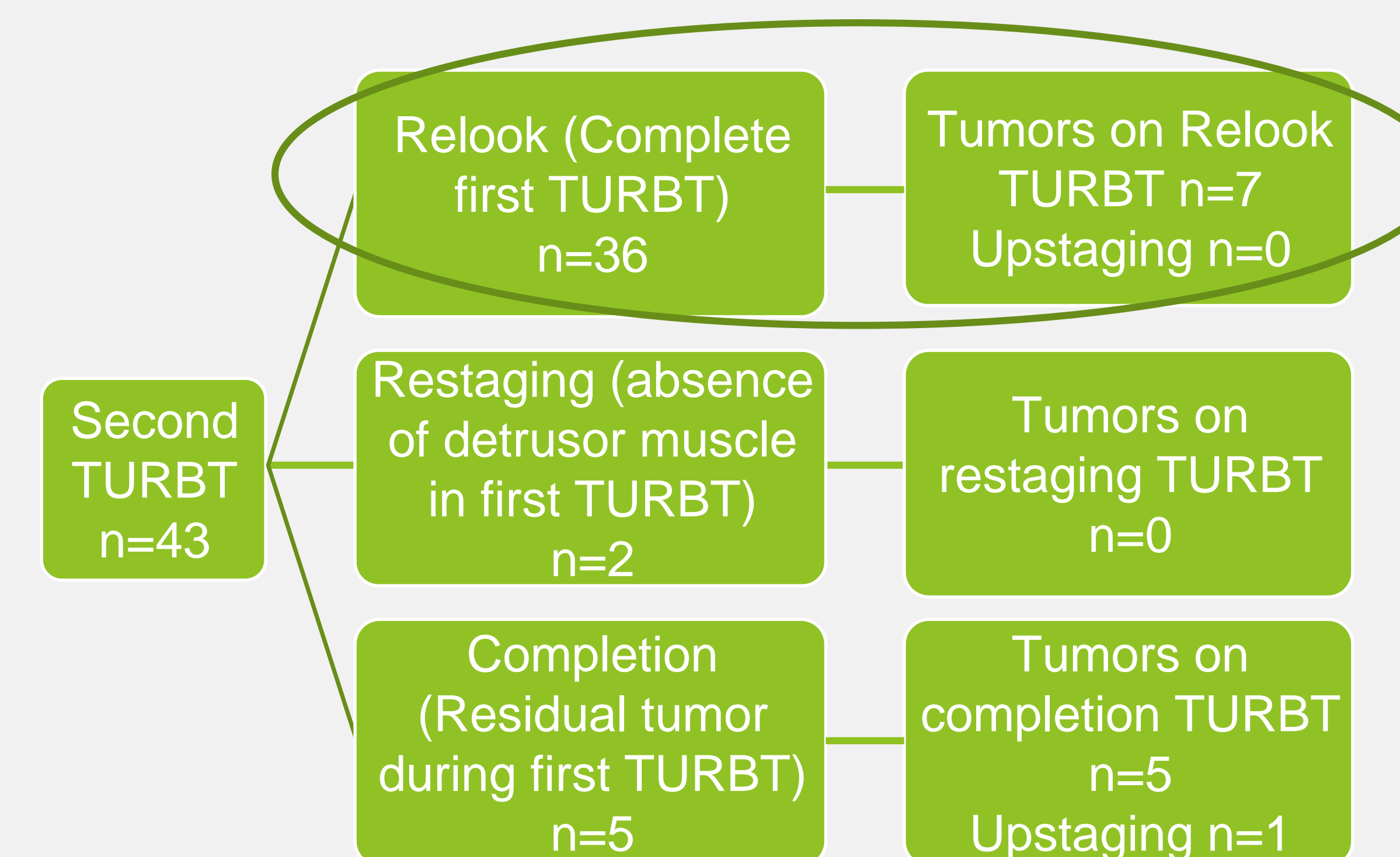


Table 1: Pathological staging and site of positive findings on Relook TURBT

Findings on second relook TURBT		Outcome (n=36)
Tumours on Second relook TURBT		7 (19.4%)
Pathological grade and stage	Carcinoma in situ	3
	pTa low grade	2
	pTa high grade	2
	pT1 high grade	0
Site of recurrences	Primary site	3
	Other	2
	Both primary and other	2

Table 2: Recurrence free survival (Single vs Two) TURBT's

Variable	Events / total	Median (months)	P value	Univariate analysis		Multivariate analysis	
				Hazard Ratio (95% CI)	P value	Hazard Ratio (95% CI)	P value
Multifocal	No	6/37	68	Ref		Ref	
	Yes	18/44	30	3.38 (1.32-8.41)	0.011	4.60 (1.67-12.63)	0.003
Size (in cm)	< 3	15/46	60	Ref		Ref	
	≥3	9/35	76	0.73 (0.32-1.66)	0.45	0.5 (0.19-1.29)	0.15
BCG maintenance	No	21/62	40	Ref		Ref	
	Yes	3/19	60	0.38 (0.11-1.28)	0.12	0.33 (0.09-1.11)	0.07
Second TURBT	No	17/49	45	Ref		Ref	
	Yes	7/32	76	0.81 (0.34-1.96)	0.64	0.74 (0.3-1.86)	0.53

Recurrence data in time to event format

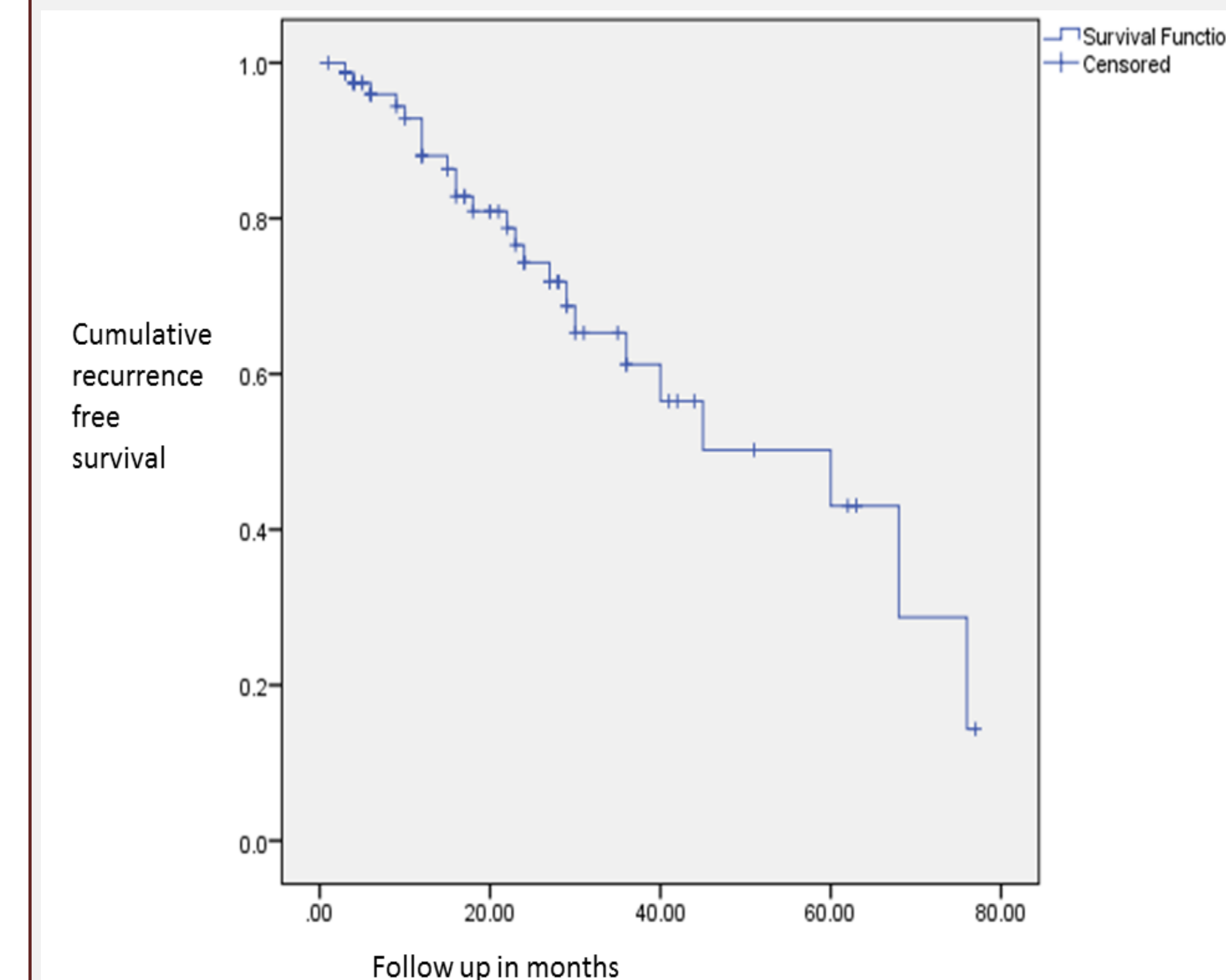


Figure 3: Median estimated recurrence free survival on Kaplan Meier estimate was 60 months (95% CI 29.2-90.7 months)

Conclusion

- ~20% had a positive finding on second TURBT after undergoing complete first TURBT.
- Multiple pTa HG tumours are four times as likely to recur during follow up as solitary tumours.
- Median estimated recurrence free survival is 60 months
- Second TURBT did not affect recurrence free survival.

References

1. Lazica DA, Roth S, Brandt AS, Böttcher S, Mathers MJ, Ubrig B. Second transurethral resection after Ta high-grade bladder tumour: a 4.5-year period at a single university center. Urol Int. 2014; 92: 131–135. doi: 10.1159/000353089