

# TERT Promoter Mutation as a Potential Predictive Biomarker in BCG-Treated Bladder Cancer Patients

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Received: 28 December 2019; Accepted: 30 January 2020; Published: date

## Supplementary data

**Supplementary Table S1.** Relation between clinicopathological characteristics and recurrence after BCG treatment. *p* values obtained from Wald test; bold values indicate *p* < 0.05. HR, Hazard Ratio; CI, Confidence Interval

	total <i>n</i> (%)	BCG therapy		HR (95% CI)	<i>p</i> -value
		success <i>n</i> (%)	failure <i>n</i> (%)		
Age group					
< 65 years	54 (43.2)	41 (51.9)	13 (28.3)	1.0	
≥ 65 years	71 (56.8)	38 (48.1)	33 (71.7)	2.827 (1.481-5.398)	<b>0.002</b>
Gender					
Female	19 (15.2)	15 (19.0)	4 (8.7)	1.0	
Male	106 (84.8)	64 (81.0)	42 (91.3)	2.023 (0.724-5.654)	0.179
Stage					
Ta	51 (40.8)	30 (38.0)	21 (45.7)	1.0	
T1	74 (59.2)	49 (62.0)	25 (54.3)	1.202 (0.672-2.148)	0.535
Grade					
Low	40 (32.0)	25 (31.6)	15 (32.6)	1.0	
High	85 (68.0)	54 (68.4)	31 (67.4)	1.204 (0.648-2.238)	0.557
Tumour size					
< 3 cm	75 (60.5)	46 (58.2)	29 (64.4)	1.0	
≥ 3 cm	49 (39.5)	33 (41.8)	16 (35.6)	0.826 (0.448-1.524)	0.541
Multifocality					
No	60 (48.0)	43 (54.4)	17 (37.0)	1.0	
Yes	65 (52.0)	36 (45.6)	29 (63.0)	2.000 (1.096-3.649)	<b>0.024</b>
Recurrence status					
Primary	67 (53.6)	48 (60.8)	19 (41.3)	1.0	
Recurrent	58 (46.4)	31 (39.2)	27 (58.7)	1.795 (0.998-3.229)	0.051
BCG schedule					
iBCG	48 (38.4)	24 (30.4)	24 (52.2)	1.0	
mBCG	77 (61.6)	55 (69.6)	22 (47.8)	0.505 (0.282-0.902)	<b>0.021</b>

**Supplementary Table S2A.** Relation between tumour size and mutation status of *FGFR3*. *p*-Values obtained from Pearson's Chi-Square test

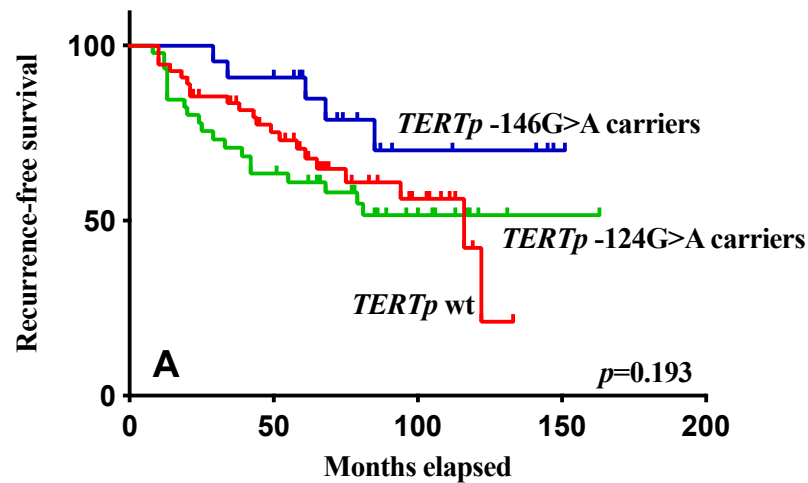
<i>FGFR3</i> exon 7	Tumour size		<i>p</i> -value
	< 3 cm	> 3 cm	

Wild type, <i>n</i> (%)	37 (60.7)	22 (51.2)	0.336
Mutated, <i>n</i> (%)	24 (39.3)	21 (48.8)	
<b><i>genotype</i></b>			
<i>R248C</i>	7 (11.5)	12 (27.9)	<b>0.048</b>
<i>S249C</i>	17 (27.9)	8 (18.6)	0.644
<i>R248C + S249C</i>	0 (0.0)	1 (2.3)	-

**Supplementary Table S2B.** Multivariate analysis exploring the relation between tumour size and mutation status of FGFR3 adjusted to potential confounders. *p*-Values obtained from binary logistic regression test.

	OR	95% CI	<i>p</i> -value
FGFR3 exon 7 <i>R248C</i>	0.373	0.116-1.202	0.099
Age ≥ 65 years	1.414	0.505-3.963	0.510
T1 tumors	0.588	0.197-1.756	0.342
Multifocality	0.996	0.339-2.929	0.994
Recurrent tumor	3.037	0.977-9.443	0.055

OR: Odds Ratio; CI: Confidence Interval.



**Supplementary Figure S1.** Kaplan–Meier recurrence-free survival function of BCG-NMIBC patients, grouped according to *TERTp* as wild type, -124G > A, and -146G > A. Overall comparison of recurrence-free survival rates was performed using the log-rank test.