

## Supplementary Data

SUPPLEMENTARY TABLE S1. GENERAL PATHOLOGICAL CHARACTERISTICS OF RADIOGENIC AND SPORADIC PTC IN AGE-MATCHED GROUPS

Characteristics	Children (4 to ≤14 years at surgery)			Adolescents (15 to ≤18 years at surgery)			Adults (≥19 to 28 years at surgery)		
	Rad (n=121) n (%) or mean (SD) <sup>a</sup>	Spor (n=60) n (%) or mean (SD)	OR <sup>b</sup> [CI]	Rad (n=66) n (%) or mean (SD)	Spor (n=54) n (%) or mean (SD)	OR [CI]	Rad (n=114) n (%) or mean (SD)	Spor (n=80) n (%) or mean (SD)	OR [CI]
<b>Capsule</b>	6 (5.0)	14 (23.3)	0.20 [0.07–0.56]	10 (15.2)	9 (16.7)	0.82 [0.30–2.23]	34 (29.8)	27 (33.7)	0.87 [0.47–1.63]
<b>Size (mean, mm)</b>									
All cases	24.0 (14.7)	21.1 (11.7)		19.1 (12.0)	17.6 (10.5)		18.6 (11.8)	18.4 (13.1)	
Non-encapsulated	24.4 (14.8)	20.5 (11.5)	1.000 <sup>d</sup>	18.6 (11.0)	16.1 (9.0)	1.000	16.8 (11.1)	12.8 (8.3)	1.000
Fully encapsulated	17.7 (10.4)	23.3 (12.4)	1.000	22.1 (16.6)	24.9 (14.6)	1.000	23.0 (12.5)	29.4 (13.9)	1.000
<b>Size ≤10 mm</b>									
All cases	7 (5.8)	12 (20.0)	0.29 [0.10–0.82]	14 (21.2)	15 (28.7)	0.70 [0.30–1.62]	36 (31.6)	32 (40.0)	0.59 [0.32–1.10]
Non-encapsulated	6 (5.2)	9 (19.6)	0.25 [0.08–0.81]	12 (21.4)	14 (31.1)	0.59 [0.24–1.47]	29 (36.2)	28 (52.8)	0.40 [0.19–0.86]
Fully encapsulated	1 (16.7)	3 (21.4)	0.80 [0.06–10.59]	2 (20.0)	1 (11.1)	0.64 [0.03–14.89]	7 (20.6)	4 (14.8)	1.66 [0.40–6.96]
<b>Size &gt; 10 mm</b>									
All cases	114 (94.2)	48 (80.0)		52 (78.8)	39 (73.2)		78 (68.4)	48 (60.0)	
Non-encapsulated	109 (94.8)	37 (80.4)		44 (78.6)	31 (68.9)		51 (63.8)	25 (47.2)	
Fully encapsulated	5 (83.3)	11 (78.6)		8 (80.0)	8 (88.9)		27 (79.4)	23 (85.2)	
<b>Dominant pattern</b>									
<b>Papillary</b>									
All cases	16 (13.2)	30 (50.0)	0.16 [0.08–0.35]	16 (24.2)	29 (53.7)	0.26 [0.12–0.58]	37 (32.5)	39 (48.7)	0.51 [0.28–0.93]
Non-encapsulated	15 (13.0)	28 (60.9)	0.10 [0.04–0.24]	13 (23.2)	26 (57.8)	0.21 [0.09–0.51]	29 (36.2)	30 (56.6)	0.48 [0.23–0.99]
Fully encapsulated	1 (16.7)	2 (14.3)	1.23 [0.09–17.20]	3 (30.0)	3 (33.3)	0.56 [0.06–5.11]	8 (23.5)	9 (33.3)	0.60 [0.19–1.91]
<b>Follicular</b>									
All cases	34 (28.1)	14 (23.3)	1.26 [0.59–2.70]	25 (37.9)	12 (22.2)	2.23 [0.97–5.10]	46 (40.4)	27 (33.7)	1.31 [0.71–2.42]
Non-encapsulated	30 (26.1)	6 (13.0)	2.29 [0.84–6.20]	20 (35.7)	7 (15.6)	3.14 [1.16–8.48]	34 (42.5)	13 (24.5)	2.08 [0.94–4.61]
Fully encapsulated	4 (66.7)	8 (57.1)	1.50 [0.19–11.77]	5 (50.0)	5 (55.6)	1.18 [0.16–8.89]	12 (35.3)	14 (51.9)	0.51 [0.18–1.47]
<b>Solid-trabecular</b>									
All cases	71 (58.7)	16 (26.7)	3.90 [1.92–7.93]	25 (37.9)	13 (24.1)	1.92 [0.86–4.29]	31 (27.2)	14 (17.5)	1.77 [0.86–3.64]
Non-encapsulated	70 (60.9)	12 (26.1)	4.53 [2.04–10.04]	23 (41.1)	12 (26.7)	1.91 [0.81–4.48]	17 (21.3)	10 (18.9)	1.16 [0.47–2.87]
Fully encapsulated	1 (16.7)	4 (28.6)	0.50 [0.04–6.00]	2 (20.0)	1 (11.1)	1.82 (0.12–28.52)	14 (41.2)	4 (14.8)	3.99 [1.11–14.32]

<sup>a</sup>% for count data, SD for tumor size.

<sup>b</sup>Sporadic PTC group was used as the reference.

<sup>c</sup>Adjusted for age and sex.

<sup>d</sup>One-way nonparametric analysis of variance with Dunn's post-test.