

Supplemental Table S1. Comparisons of clinicopathological features by “tumor focality” in all papillary thyroid carcinomas and papillary microcarcinomas.

		<i>In all papillary thyroid carcinomas</i> <i>n: 706</i>				<i>In papillary microcarcinomas</i> <i>n: 406</i>			
<i>Variables</i>		Unifocal n: 340	Multifocal n: 366	Total	p	Unifocal n: 219	Multifocal n: 187	Total	p
		n (%)	n (%)	n		n (%)	n (%)	n	
Age	≤45 years	128 (54.5)	107 (45.5)	235	0.018	75 (61.0)	48 (39.0)	123	0.061
	>45 years	212 (45.0)	259 (55.0)	471		144 (50.9)	139 (49.1)	283	
Gender	Female	289 (49.1)	300 (50.9)	589	0.279	195 (55.6)	156 (44.4)	351	0.067
	Male	51 (43.6)	66 (56.4)	117		24 (43.6)	31 (56.4)	55	
Lymphocytic thyroiditis	Absent	207 (50.5)	204 (49.5)	411	0.176	129 (56.6)	99 (43.4)	228	0.243
	Present	133 (45.1)	162 (54.9)	295		90 (50.6)	88 (49.4)	178	
Primary tumor diameter	≤10 mm	219 (53.9)	187 (46.1)	406	<0.001	219 (53.9)	187 (46.1)	406	*
	>10 mm	121 (40.3)	179 (59.7)	300					
Histological subtype	CPTC	160 (46.2)	186 (53.8)	346	0.065	113 (53.8)	97 (46.2)	210	0.971
	IFPTC	173 (51.5)	163 (48.5)	336		102 (54.3)	86 (45.7)	188	
	ASPTC	7 (29.2)	17 (70.8)	24		4 (50.0)	4 (50.0)	8	
LVI	Absent	311 (48.7)	328 (51.3)	639	0.401	216 (55.0)	177 (45.0)	393	0.023
	Present	29 (43.3)	38 (56.7)	67		3 (23.1)	10 (76.9)	13	
PNI	Absent	333 (48.0)	360 (52.0)	693	0.893	218 (54.1)	185 (45.9)	403	0.441
	Present	7 (53.8)	6 (46.2)	13		1 (33.3)	2 (66.7)	3	
LNM	Absent	169 (46.7)	193 (53.3)	362	0.291	110 (52.4)	100 (47.6)	210	0.081
	Present	29 (40.3)	43 (59.7)	72		9 (34.7)	17 (65.3)	26	
ETE	Absent	277 (48.9)	289 (51.1)	566	0.404	201 (56.3)	156 (43.7)	357	0.008
	Present	63 (45.0)	77 (55.0)	140		18 (36.7)	31 (63.3)	49	
Radioactive iodine therapy	Absent	193 (59.2)	133 (40.8)	326	<0.001	189 (59.2)	130 (40.8)	319	<0.001
	Present	147 (38.7)	233 (61.3)	380		30 (34.5)	57 (65.5)	87	
Recurrence	Absent	336 (48.6)	355 (51.4)	691	0.155	218 (54.1)	185 (45.9)	403	0.441
	Present	7 (31.8)	15 (68.2)	22		3 (42.9)	4 (57.1)	7	
BRAFV600E	Wild-type	167 (46.1)	195 (53.9)	362	0.448	119 (54.6)	99 (45.4)	218	0.994
	Mutated	47 (50.5)	46 (49.5)	93		23 (56.1)	18 (43.9)	41	

CPTC: : Classic papillary thyroid carcinoma, **IFPTC**: Infiltrative follicular subtype papillary thyroid carcinoma, **ASPTC**: Aggressive subtype papillary thyroid carcinoma, **LVI**: Lymphovascular invasion, **PNI**: Perineural invasion, **LNM**: Lymph node metastasis, **ETE**: Extrathyroidal extension.

Supplemental Table S2 . Comparisons of clinicopathological features by “number of tumor foci”

In whole study group.

Variables		Number of tumor foci according to 4-tiered system n: 706				p	Number of tumor foci according to 3-tiered sytem n: 706				p
		1	2	3	4+		1	2	3+		
		n (%)	n (%)	n (%)	n (%)		n (%)	n (%)	n (%)		
Age	≤45 years	129 (54.9)	58 (24.7)	18 (7.7)	30 (12.8)	0.049	129 (54.9)	58 (24.7)	48 (20.4)	0.031	
	>45 years	213 (45.2)	125 (26.5)	61 (13.0)	72 (15.3)		213 (45.2)	125 (26.5)	133 (28.2)		
Gender	Female	291 (49.4)	145 (24.6)	66 (11.2)	87 (14.8)	0.352	291 (49.4)	145 (24.6)	153 (26.0)	0.206	
	Male	51 (43.6)	38 (32.5)	13 (11.1)	15 (12.8)		51 (43.6)	38 (32.5)	28 (23.9)		
Lymphocytic thyroiditis	Absent	209 (50.7)	108 (26.3)	41 (10.0)	53 (12.9)	0.254	209 (50.7)	108 (26.3)	94 (22.9)	0.131	
	Present	133 (45.1)	75 (25.4)	38 (12.9)	49 (16.6)		133 (45.1)	75 (25.4)	87 (29.5)		
Primary tumor diameter	≤10 mm	219 (35.9)	104 (25.6)	42 (10.3)	41 (10.1)	<0.001	219 (35.9)	104 (25.6)	83 (20.4)	<0.001	
	>10 mm	123 (41.0)	79 (26.3)	37 (12.3)	61 (20.3)		123 (41.0)	79 (26.3)	98 (32.7)		
Histological subtype	CPTC	162 (46.8)	80 (23.1)	38 (11.0)	66 (19.1)	<0.001	162 (46.8)	80 (23.1)	104 (30.1)	0.006	
	IFPTC	173 (51.5)	91 (27.1)	41 (12.2)	31 (9.2)		173 (51.5)	91 (27.1)	72 (21.4)		
	ASPTC	7 (29.2)	12 (50.0)	0 (0.0)	5 (20.8)		7 (29.2)	12 (50.0)	5 (20.8)		
LVI	Absent	313 (49.0)	166 (26.0)	73 (11.4)	87 (13.6)	0.264	313 (49.0)	166 (26.0)	160 (25.0)	0.508	
	Present	29 (43.3)	17 (25.4)	6 (9.0)	15 (22.4)		29 (43.3)	17 (25.4)	21 (31.3)		
PNI	Absent	335 (48.3)	181 (26.1)	78 (11.3)	99 (14.3)	0.688	335 (48.3)	181 (26.1)	177 (25.5)	0.676	
	Present	7 (53.8)	2 (15.4)	1 (7.7)	3 (23.1)		7 (53.8)	2 (15.4)	4 (30.8)		
LNM	Absent	170 (47.0)	88 (24.3)	42 (11.6)	62 (17.1)	0.658	170 (47.0)	88 (24.3)	104 (28.7)	0.498	
	Present	29 (40.3)	23 (32.0)	7 (9.7)	13 (18.0)		29 (40.3)	23 (32.0)	20 (27.7)		
ETE	Absent	279 (49.3)	145 (25.6)	64 (11.3)	78 (13.8)	0.696	279 (49.3)	145 (25.6)	142 (25.1)	0.649	
	Present	63 (45.0)	38 (27.1)	15 (10.7)	24 (17.1)		63 (45.0)	38 (27.1)	39 (27.9)		
Radioactive iodine therapy	Absent	193 (59.2)	81 (24.8)	29 (8.9)	23 (7.1)	<0.001	193 (59.2)	81 (24.8)	52 (16.0)	<0.001	
	Present	149 (39.2)	102 (26.8)	50 (13.2)	79 (20.8)		149 (39.2)	102 (26.8)	129 (33.9)		
Recurrence	Absent	338 (48.9)	177 (25.6)	78 (11.3)	98 (14.2)	0.209	338 (48.9)	177 (25.6)	176 (25.5)	0.220	
	Present	7 (31.8)	8 (36.4)	2 (9.1)	5 (22.7)		7 (31.8)	8 (36.4)	7 (31.8)		
BRAFV600E	Wild-type	167 (46.1)	97 (26.8)	42 (11.6)	56 (15.5)	0.685	167 (46.1)	97 (26.8)	98 (27.1)	0.528	
	Mutated	48 (51.6)	20 (21.5)	12 (12.9)	13 (14.0)		48 (51.6)	20 (21.5)	25 (26.9)		

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Supplemental Table S3. Comparisons of clinicopathological features by tumor laterality and focality in papillary thyroid carcinomas and papillary microcarcinomas with total thyroidectomy.

		In whole study group with total thyroidectomy n: 668					In papillary microcarcinomas with total thyroidectomy n: 372				
Variables		Unilateral/ Unifocal n (%)	Unilateral/ Multifocal n (%)	Bilateral/ Multifocal n (%)	Total n	p	Unilateral/ Unifocal n (%)	Unilateral/ Multifocal n (%)	Bilateral/ Multifocal n (%)	Total n	p
Age	≤45 years	117 (52.2)	38 (17.0)	69 (30.8)	224	0.072	66 (57.9)	21 (18.4)	27 (23.7)	114	0.217
	>45 years	191 (43.0)	96 (21.6)	157 (35.4)	444		124 (48.1)	59 (22.9)	75 (29.1)	258	
Gender	Female	261 (46.9)	107 (19.2)	188 (33.8)	556	0.449	169 (52.6)	64 (19.9)	88 (27.4)	321	0.149
	Male	47 (42.0)	27 (24.1)	38 (33.9)	112		21 (41.2)	16 (31.4)	14 (27.5)	51	
Lymphocytic thyroiditis	Absent	185 (47.9)	77 (19.9)	124 (32.1)	386	0.484	110 (53.4)	44 (21.4)	52 (25.2)	206	0.525
	Present	123 (43.6)	57 (20.2)	102 (36.2)	282		80 (48.2)	36 (21.7)	50 (30.1)	166	
Primary tumor diameter	≤10 mm	190 (51.1)	80 (21.5)	102 (27.4)	372	<0.001	190 (51.1)	80 (21.5)	102 (27.4)	372	*
	>10 mm	118 (39.9)	54 (18.2)	124 (41.9)	296						
Histological subtype	CPTC	145 (44.1)	65 (19.8)	119 (36.2)	329	0.102	99 (50.8)	43 (22.1)	53 (27.2)	195	0.958
	IFPTC	156 (49.5)	65 (20.6)	94 (29.8)	315		87 (51.5)	36 (21.3)	46 (27.2)	169	
	ASPTC	7 (29.2)	4 (16.7)	13 (54.2)	24		4 (50.0)	1 (12.5)	3 (37.5)	8	
LVI	Absent	279 (46.4)	124 (20.6)	198 (32.9)	601	0.286	187 (52.1)	76 (21.2)	96 (26.7)	359	0.115
	Present	29 (46.1)	10 (14.9)	28 (41.8)	67		3 (23.1)	4 (30.8)	6 (46.2)	13	
PNI	Absent	301 (46.0)	131 (20.0)	223 (34.0)	655	0.710	189 (51.2)	78 (21.1)	102 (27.6)	369	0.143
	Present	7 (53.8)	3 (23.1)	3 (23.1)	13		1 (33.3)	2 (66.7)	0 (0.0)	3	
LNМ	Absent	159 (45.4)	64 (18.3)	127 (36.3)	350	0.659	110 (52.4)	39 (18.6)	61 (29.0)	210	0.177
	Present	26 (39.4)	13 (19.7)	27 (40.9)	66		9 (34.6)	8 (30.8)	9 (34.6)	26	
ETE	Absent	245 (46.4)	107 (20.3)	176 (33.3)	528	0.867	172 (53.3)	67 (20.7)	84 (26.0)	323	0.093
	Present	63 (45.0)	27 (19.3)	50 (35.7)	140		18 (36.7)	13 (26.5)	18 (36.7)	49	

Radioactive iodine therapy	Absent	164 (56.2)	54 (18.5)	74 (25.3)	292	<0.001	160 (56.1)	53 (18.6)	72 (25.3)	285	0.002
	Present	144 (38.3)	80 (21.3)	152 (40.4)	376		30 (34.5)	27 (31.0)	30 (34.5)	87	
Recurrence	Absent	304 (46.6)	133 (20.4)	216 (33.1)	684	0.018	216 (58.5)	83 (22.5)	100 (27.0)	369	0.812
	Present	7 (31.8)	3 (13.6)	12 (54.6)	22		3 (42.8)	2 (28.6)	2 (28.6)	7	
BRAFV600E	Wild-type	148 (43.3)	71 (20.8)	123 (36.0)	342	0.574	101 (50.5)	41 (20.5)	58 (29.0)	200	0.904
	Mutated	45 (49.5)	17 (18.7)	29 (31.9)	91		21 (53.8)	8 (20.5)	10 (25.6)	39	

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