

Table 1: Basic data of the included studies.

Studies: author, year, country	Study design	Study period	sample size	Age	Sex M:F	Follow up(months)	Tumor size	Multifocality	Bilaterallity	Extracapsular invasion	Extrathyroidal infiltration	Lymphovascular invasion	Pathology	Reccurence
Koo, B. S. (2009) Korea ¹⁶	prospective cohort	2005-2007	111	47.7	16/95	N/A	2– 48 mm	N/A	N/A	72	N/A	84	PTC	N/A
COSTA, S. (2009) ¹⁷	retrospective cohort	1994-2006	244	45	50/194	N/A	<10mm 92	105	N/A	N/A	N/A	N/A	PTC	17
S. Vergez (2010)France ¹⁸	retrospective cohort	2000-2006	90	45 ± 16	19/71	62	N/A	N/A	N/A	N/A	N/A	N/A	PTC	N/A
So, Y. K. (2010) Korea ¹⁹	retrospective cohort	2005-2009	515	50.2 ± 9.2	111/440	N/A	6 ± 2 mm	38.50%	26.70%	2.00%	53.00%	0.70%	PTMC	N/A
Roh, J.-L. (2011) Korea ²⁰	prospective cohort	2005-2007	184	47	40/144	N/A	4-55 mm	37	17	N/A	100	56	PTC	N/A
Zhou, Y.-L. (2012) China ²¹	retrospective cohort	2010-2011	211	49±11	32/179	N/A	5.8±2.7 mm	25	N/A	N/A	10	N/A	PTMC	N/A
Caliskan, M. (2012) ²²	retrospective cohort	2000-2005	842	46.27 ± 10.41	73/769	≥ 60	<5mm 326 >5mm 516	209	130	407	23	N/A	PTMC	N/A
Kim, B. Y. (2012) ²³	retrospective cohort	2006-2010	160	47.3±11.8	19/141	N/A	6.8±2.1 mm	54	37	N/A	82	4	PTMC	N/A
Hartl, D. M. (2012) France ²⁴	retrospective cohort	1997-2009	317	44	254/63	48	3-70 mm	N/A	N/A	N/A	49	N/A	PTC	N/A
Lee, K. E. (2012) Korea ²⁵	retrospective cohort	2006-2007	161	20-73	36/125	N/A	2–60 mm	N/A	42	N/A	93	13	PTC	N/A
Wu, Y (2013) China ²⁶	retrospective cohort	2007-2009	228	44	34/194	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PTC	N/A
Wang, W. (2013) ²⁷	retrospective cohort	2008-2010	276	44.67	42/234	N/A	N/A	N/A	32	N/A	N/A	N/A	PTC	N/A
Miao, S. (2013) China ²⁸	retrospective cohort	2007-2009	184	39.8	44/140	24-50	2--68mm	N/A	N/A	N/A	N/A	N/A	PTC	N/A
Lang, B. H.-H (2014) China ²⁹	prospective cohort	2003-2013	341	49.0±14.6	63/278	N/A	17.3±11.2mm	105	66	N/A	89	44	PTC	N/A
Zhang, H. (2014) China ³⁰	retrospective cohort	2010-2012	529	44.5±11.1	118/411	N/A	16±11 mm	79	N/A	N/A	6	N/A	PTC	N/A
Wang, Q. (2014) ³¹	retrospective cohort	N/A	188	45	35/153	N/A	<10mm 94 >10mm 94	44	N/A	21	N/A	N/A	PTC	N/A
Zhang L.Y. (2015) China ³²	retrospective cohort	2008-2010	178	46	37/141	N/A	<6mm 95 >6mm 83	58	55	20	N/A	N/A	PTMC	N/A
Park, K.M. (2015) ³³	retrospective cohort	2009-2013	264	48.4 ±11.9	42/222	N/A	10.6± 5.7mm	116	N/A	N/A	165	N/A	PTC	
Gao, Y. (2015) China ³⁴	retrospective cross sectional	2013	163	45.4±10.6	36/127	N/A	7.1±1.8 mm	32	N/A	77	36	69	PTMC	N/A
Yuan, J. (2016) Korea ³⁵	retrospective cohort	2014-2015	190	41±11.6	61-129	N/A	>20mm 83 <20mm 107	63	55	60	19	N/A	PTC	N/A
Xue, S. (2016) China ³⁶	retrospective cohort	2003-2008	1555	43.25 ± 10.38	267 / 1388	N/A	1-80 mm	N/A	504	N/A	N/A	N/A	PTC	N/A
Lin, X. (2016) China ³⁷	retrospective cohort	2014	153	3.1±13.1	45/108	N/A	>20mm 33 <20mm 120	49	N/A	37	N/A	N/A	DTC	N/A
Kim, S. K. (2016) Korea ⁸	retrospective cohort	1997- 2015	11569	>18	N/A	62.6	N/A	N/A	N/A	N/A	N/A	N/A	PTC	N/A
Yuan, J. (2017) China ³⁸	retrospective cohort	2014-2015	295	43.0 ± 12.3	89/206	N/A	>5mm 107 <5mm 188	91	76	43	10	4	PTC	N/A
M. Li (2017) China ³⁹	retrospective cohort	2014-2016	273	43.7 ±13.1	59/214	N/A	>3m 243 <3mm 30	111	61	17	N/A	N/A	PTMC	N/A
Sessa, L. (2017) Italy ⁴⁰	prospective cohort	2008-2012	182	42.6 ± 14.5	38/148	N/A	14.7 ± 9.2	128	97	57	N/A	27	PTC	N/A
Calò, P. G. (2017) Italy ⁴¹	retrospective cohort	2008-2012	258	44.4 ±11.8	202/56	72.5 ±8.4	N/A	99	N/A	N/A	60	23	DTC	5
An, C. (2017) China ⁴²	retrospective cohort	2006-2013	138	18-71	33/108	36	1-50 mm	36	N/A	N/A	N/A	N/A	PTC	1
Han, Z. (2018) ⁴³	retrospective cohort	2003-2008	151	37.41± 9.49	32/119	N/A	12- 81 mm	62	46	N/A	N/A	N/A	PTC	N/A
Ryu, Y. J. (2018) Korea ⁴⁴	retrospective cohort	2004-2008	1406	47	190/1216	107	>10 mm 431 ,>20mm 145	324	294	N/A	N/A	27	PTC	37
Zhang, Q. (2019) China ⁴⁵	retrospective cohort	2013-2016	1304	44.9 ± 9.32	187/1117	N/A	5.4 ± 2.1 mm	785	681	879	142	7	PTMC	N/A
Xu, S. (2019) China ⁴⁶	retrospective cohort	2018-2019	635	42.6 ± 12.4	467/168	N/A	9.0 ± 4.8 mm	N/A	N/A	N/A	N/A	N/A	PTC	N/A
Ryu, Y. J. (2019) Korea ⁴⁷	retrospective cohort	2004-2012	1082	46	213/869	78	>10 mm 430 <10mm 652	331	424	N/A	N/A	23	PTC	62
Ngo, D. Q. (2020) Vietnam ⁴⁸	retrospective cohort	2015-2019	32	15.5	6--26	N/A	<10mm 15 >10mm 17	10	7	N/A	9	N/A	PTC	N/A
Shen, G. (2020) China ⁴⁹	retrospective cohort	2009-2015	947	44.0±10.0	248/699	N/A	7.5±2.4 cm	84	N/A	N/A	91	N/A	PTMC	N/A
Zhang, C. (2020)China ⁵⁰	retrospective cohort	2015-2017	553	45.24±8.56	69/484	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PTMC	N/A
Zhou, B. (2020) China ⁵¹	retrospective cohort	2013-2016	369	N/A	75/294	N/A	<10 mm 312	153	N/A	39	N/A	N/A	PTC	N/A
Feng, J.-W. (2020) China ⁵²	retrospective cohort	2010-2018	371	45.7±11.7	79/292	47	6.7±2.4 cm	89	N/A	N/A	32	6	PTMC	14
Yan, Y. (2021) China ⁵³	retrospective cohort	2017-2020	516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PTC	N/A
Zhou, B. (2021) China ⁵⁴	retrospective cohort	2019-2020	212	18-55 171, >55 41	49/163	N/A	<5mm 45 ,5mm<n<10 mm 103,>10mm 35	29	N/A	23	N/A	N/A	PTC	N/A
Huang, J. (2021) China ⁵⁵	retrospective cohort	2017-2019	364	41.02±11.324	235/129	N/A	<10mm 232 >10mm 132	121	90	87	56	N/A	PTC	N/A

(*) The results are presented as means and standard deviation.

(**) The results are presented as median and range

