

Supplemental Table S1. Clinical Characteristics of Medullary Thyroid Carcinoma Patients by Year of Diagnosis

Characteristic	1980–1989 (n=6)	1990–1999 (n=38)	2000–2009 (n=76)	2010–2020 (n=106)
Female sex	5 (83)	26 (68)	47 (62)	66 (62)
Age, yr	35.6±9.6	40.7±14.7	47.7±14.5	51.7±15.5
Hereditary	3 (50)	12 (32)	12 (16)	26 (25)
RET mutation, positive/tested	3 (50)/3 (50)	9 (24)/12 (32)	10 (13)/32 (42)	24 (23)/85 (80)
Operation				
Surgical extent, less than TT/TT	2 (33)/4 (67)	10 (26)/28 (74)	3 (4)/73 (96)	2 (2)/104 (98)
Lymph node extent ^a , CND/LND/none	1 (17)/1 (17)/4 (67)	14 (37)/6 (16)/14 (37)	19 (25)/31 (41)/16 (21)	62 (58)/38 (36)/4 (4)
Pathology				
Tumor size in greatest length, cm	2.4±0.9	2.5±1.2	2.1±1.7	2.0±2.0
Tumor size, <2 cm/≥2 cm	3 (50)/1 (17)	8 (21)/20 (53)	34 (45)/29 (38)	68 (64)/33 (31)
ETE, none/microscopic/gross	2 (33)/0/1 (17)	17 (45)/5 (13)/5 (13)	43 (57)/14 (18)/3 (4)	67 (68)/22 (22)/10 (10)
Lymph node metastasis ^b , none/CN/LN	1 (17)/0/1 (17)	3 (8)/8 (21)/8 (21)	16 (21)/8 (11)/21 (28)	44 (42)/27 (25)/28 (26)
Resection margin positive status	0	5 (13)	2 (3)	5 (5)
Combined pathology, PTC/FTC	1 (17)/0	0/0	7 (9)/1 (1)	20 (19)/1 (1)
Initial distant metastasis	0	2 (5)	0	6 (6)
Postoperative neck radiotherapy	2 (33)	12 (32)	8 (11)	19 (18)
Recurrence outcomes				
Follow-up period, mo	96.0 (90.5–137.5)	64.5 (39.3–148.0)	77.0 (36.3–158.3)	64.5 (34.5–119.3)
Recurrence/persistence	5 (83)/0	22 (58)/2 (5)	38 (50)/0	27 (25)/6 (6)
Cumulative recurrence rate at 5/10 /20/30 years, %	0.0/58.3/79.2/79.2	39.3/58.9/77.6/-	31.9/47.6/59.8/77.6	23.8/33.2/-/-
Sites of recurrence ^c				
LN/mediastinum/distant organs	5 (83)/1 (17)/2 (33)	21 (55)/8 (21)/10 (26)	34 (45)/9 (12)/19 (25)	23 (85)/7 (26)/25 (93)
Single/multiple	3 (50)/2 (33)	8 (21)/14 (37)	21 (28)/17 (22)	11 (34)/21 (66)
Final disease status, BCR/BCD/CD	2 (33)/2 (33)/2 (33)	63 (59)/14 (13)/19 (18)	35 (46)/18 (24)/23 (30)	63 (59)/14 (13)/19 (18)
Survival outcomes				
Follow-up period, mo	374.5 (194.5–452.5)	200.0 (74.3–310.0)	145.5 (71.3–196.8)	89.5 (48.3–132.8)
Mortality, MTC-specific/all causes	2 (33)/2 (33)	9 (24)/12 (32)	11 (15)/17 (22)	10 (9)/12 (11)
Cumulative disease specific death rate at 5/10/20/30 years, %	0.0/0.0/20.0/40.0	10.8/10.8/30.1/-	6.9/10.7/22.9/-	7.3/11.5/-/-

Values are expressed as number (%), mean±standard deviation, or median (interquartile range).

RET, rearranged during transfection; TT, total thyroidectomy; CND, central node dissection; LND, lateral node dissection; ETE, extrathyroidal extension; CN, central node; LN, lateral node; PTC, papillary thyroid carcinoma; FTC, follicular thyroid carcinoma; BCR, biochemical remission; BCD, biochemical disease; CD, clinical disease; MTC, medullary thyroid carcinoma.

^aAvailable information for 210 patients (6 patients in the 1980–1989 period, 34 patients in the 1990–1999 period, 66 patients in the 2000–2009 period, and 104 patients in the 2010–2020 period); ^bAvailable information for 165 patients (2 patients in the 1980–1989 period, 19 patients in the 1990–1999 period, 45 patients in the 2000–2009 period, and 99 patients in the 2010–2020 period); ^cPercentages are relative to only 93 recurrent patients (five patients in the 1980–1989 period, 22 patients in the 1990–1999 period, 38 patients in the 2000–2009 period, and 27 patients in the 2010–2020 period). The data include cases with recurrence at multiple sites, with each site counted separately, which may have resulted in duplicate counts.