

Supplemental Table 1. Patient characteristics and previous treatments

No.	Gender	Age (y)	Total thyroid-ectomy	Neck lymph-node dissection and/or extirpation	Other metastatic operations	Radiation therapy for neck	Octreotide	Interferon	Chemo-therapy	Ct in study day (pmol/L)	CEA in study day (µg/L)	Time interval between diagnosis and study
1	F	47	1996	2010	-	-	-	-	-	50.0	4.8	11 y
2	M	37	2007	2007	2007, 2009, 2010	planned	-	-	-	118.0	4.0	7 mo
3	F	55	1995	2005		-	-	-	-	56.8	5.7	13 y
4	M (MEN2A)	49	1986	several (1994-2009)	2008	-	2009	-	-	2080.0	132.3	21 y
5	M	54	2005	2005, 2008	2006	2006	-	-	-	31.9	6.4	3 y
6	M	69	1986			-	-	-	-	94.2	30.5	19 y
7	M	47	1994	several (1994-96, 2003, 2006, 2008)	2008	-	2008	-	-	499.0	16.0	13 y
8	M (MEN2A)	49	1998	2007	2008	-	-	-	-	16.6	2.1	9 y
9	M	50	2005	2005, 2006	-	2006		2006	-	2840.0	230.0	3 y
10	M	56	2006	2006	-	-	2006	-	2006	1598.2	460.0	2 y
11	F	61	1999	2009	-	-	-	-	-	44.8	2.0	9 y
12	F	56	1999		-	-	-	-	-	28.7	2.2	9 y
13	F	30	2007	2009	-	-	-	-	-	21.7	1.9	1 y 6 mo
14	M	59	2006	-	-	-	-	-	-	2860.0	82.6	3 y
15	F	47	2007	-	-	-	-	-	-	13.8	2.0	2 y
16	F	74	2008	2008	-	-	-	-	-	69.4	7.3	1 y 4 mo
17	F (MEN2B)	31	1984	several (1985-1999)	-	2001	1998	-	1999- 2000	2478.0	110.0	25 y
18	F	36	2009	2009	-	2009	sorafenib 2009	-	-	72.0	12.5	4 mo
19	M	74	2008	2008, 2010	-	2010	-	-	-	62.9	2.1	1 y 4 mo

Supplemental Table 2. Number of lesions in different regions in imaging studies

a. neck

No	¹⁸ F-DOPA PET/CT	¹⁸ F-FDG PET/CT	MDCT	MRI	Neck US
1	0	0	0	0	0
2	1 (H)	1 (H)	1 (H)	1 (H)	1 (H)
3	1 (H)	1 (H)	0	0	0
4	0	2 (H)	0	2 (H)	2 (H)
5	0	2 (FP, H)	0	1 (FP, H)	1 (FP, H)
6	0	0	0	0	0
7	1 (H)	1 (H)	1 (H)	1 (H)	0
8	1 (H*)	0	0	3 (FP, H)	0
9	5 (noH)	0	0	0	0
10	0	2 (noH)	3 (noH)	5 (noH)	ND
11	1 (H)	0	0	0	0
12	0	0	0	0	0
13	0	0	0	1 (FP, H)	0
14	2 (noH)	5 (noH)	0	3 (noH)	7 (noH)
15	0	0	0	ND	0
16	0	0	0	ND	0
17	0	5 (noH)	1 (noH)	2 (noH)	ND
18	2 (H)	2 (H)	0	4 (H)	3 (H)
19	3 (H)	0	0	6 (H)	1 (H)

* parathyroid adenoma

b. lungs

No	¹⁸ F-DOPA PET/CT	¹⁸ F-FDG PET/CT	MDCT	MRI
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	3 (H)	2 (H)	2 (H)	4 (H)
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	ND
16	0	0	0	ND
17	0	0	1 (noH)	3 (noH)
18	0	0	0	1 (H)
19	0	0	0	0

c. mediastinum

No	¹⁸ F-DOPA PET/CT	¹⁸ F-FDG PET/CT	MDCT	MRI
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	1 (noH)
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	8 (noH)	3 (noH)	7 (noH)	5 (noH)
15	0	0	0	ND
16	0	0	0	ND
17	5 (noH)	5 (noH)	5 (noH)	3 (noH)
18	10 (H)	6 (H)	2 (H)	6 (H)
19	0	0	0	1 (noH)

d. liver

No	¹⁸ F-DOPA PET/CT	¹⁸ F-FDG PET/CT	MDCT	MRI
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	4 (H)	1 (H)	2 (H)	>10 (H)*
5	0	0	2 (FP, noH)	NA
6	0	0	0	NA
7	0	0	0	NA
8	0	0	0	0
9	7 (noH)	1 (noH)	>10 (noH)	>10 (noH)
10	0	10 (noH)	>10 (noH)	>10 (noH)
11	0	0	0	NA
12	0	0	0	NA
13	0	0	0	NA
14	0	0	0	0
15	0	0	0	ND
16	0	0	0	ND
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0

* in addition metastasis in spleen detected without histological verification (retrospectively observed also in MDCT)

e. skeleton

No	¹⁸ F-DOPA PET/CT	¹⁸ F-FDG PET/CT	MDCT	MRI
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	1 (H)	0	1(H)
5	0	0	0	0
6	3 (noH)*	1 (FP, H)*	0	1 (noH)*
7	0	0	0	0
8	0	0	0	0
9	2 (noH)	0	0	3 (noH)
10	0	4 (noH)	8 (noH)	>10 (noH)
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	ND
16	0	0	0	ND
17	0	0	0	0
18	3 (noH)	2 (noH)	1 (noH)	0
19	0	0	0	0

* bone metastasis verified in ¹⁸F-DOPA PET/CT and MRI and radiation therapy for bone metastases was given.
¹⁸F-FDG PET/CT showed only uptake in femur and histology was benign