

Supplemental TABLE 1

Previous Treatments of the Patients of this Study

Characteristics	Patient 1	Patient 2
Relevant previous surgery	09-10/2011: Embolization, followed by right neck dissection (partial excision of right glomus caroticum tumor, paraganglioma) and lymphadenectomy 01/2017: Partial excision of residual right cervical tumor and of lymph nodes	10/1996: Left partial pancreatectomy (primary tumor size 8.6 cm) and Splenectomy. 03/2017: Right hemihepatectomy, Excision of hepatic segment 3, extirpation of lymph nodes in hepatoduodenal ligament area, and tumor excision from teres as well as falciform ligaments, peritoneal adhesiolysis, cholecystectomy
Other relevant treatment	12/2011: Radiochemotherapy (59.4 Gy to the right neck, Carboplatin)	06-09/2016: Treatment with Everolimus (ceased due to severe stomatitis)
Previous PRRT	04/2017: 6800 MBq ¹⁷⁷ Lu-DOTATOC i.v. 07/2017: 7100 MBq ¹⁷⁷ Lu-DOTATOC i.v.	01/2005: 4600 MBq ⁹⁰ Y-DOTATATE i.a. 05/2005: 4000 MBq ⁹⁰ Y-DOTATATE i.a. 09/2005: 4100 MBq ⁹⁰ Y-DOTATATE i.a. 07/2006: 7000 MBq ¹⁷⁷ Lu-DOTATATE i.v. 02/2013: 7500 MBq ¹⁷⁷ Lu-DOTATATE i.v. 05/2013: 8300 MBq ¹⁷⁷ Lu-DOTATATE i.v. 05/2015: 5900 MBq ¹⁷⁷ Lu-DOTATATE i.v. 08/2017: 6000 MBq ¹⁷⁷ Lu-DOTA-LM3 i.v. 11/2017: 5800 MBq ¹⁷⁷ Lu-DOTA-LM3 i.v.

NEN: neuroendocrine neoplasm; i.a.: intra-arterial; i.v.: intravenous; N/A: not available

Supplemental TABLE 2

Laboratory Parameters of the Patients Before and After ¹⁶¹Tb-DOTATOC Administration

Parameters	Normal range	Units	Patient 1		Patient 2	
			Before (02.07.18)	After (26.03.19)	Before (07.11.18)	After (19.12.18)
Hemoglobin	8.6–12.1	mmol/L	9.0	9.3	7.7	6.4
Leukocytes	4.3–10	Gpt/L	7.5	8.4	8.6	8.5
Thrombocytes	150–400	Gpt/L	193	166	366	377
Urea	3–9.2	mmol/L	2.6	2.3	6.2	8.9
Creatinine	62–106	μmol/L	46.5	55.6	115.3	111.6
eGFR (MDRD)	>60	mL/min/1.73m ²	>60	>60	57.6	59.8
ALT	<0.83	μmol/s/L	0.61	0.73	1.02	0.55
AST	<0.85	μmol/s/L	0.48	0.53	1.13	1.29
GGT	0.17–1.19	μmol/s/L	1.17	1.16	7.98	15.18
CRP	<5	mg/L	49.6	46.4	9.7	62.6
Tumor markers						
NSE	<16.3	ng/mL	-	-	45.2	88.8
Chromogranin A	0–100	μg/L	-	-	523	514
Metanephrine	0–90	ng/L	33.8	<30	-	-
Normetanephrine	0–180	ng/L	99.4	123.5	-	-

“Before”: 1 day before the application of ¹⁶¹Tb-DOTATOC; “After”: at the time of the next individually planned clinical visit for follow-up.

ALT, alanine transaminase; AST, aspartate transaminase; eGFR, estimated glomerular filtration rate; GGT: gamma-glutamyl transpeptidase; MDRD: modification of diet in renal disease; CRP: C-reactive protein; NSE: Neuron-specific enolase

Supplemental TABLE 3

Dosimetry Data for ^{161}Tb -DOTATOC Administered to Patient 1 and Patient 2

Organ/Tissue	Effective half-life in h		Mean absorbed dose in Gy/GBq ¹⁾	
	Patient 1	Patient 2	Patient 1	Patient 2
Whole body	55	52	0.04	0.07
Kidneys	44	51	0.8	1.5
Liver	57	n.d. ¹⁾	0.1	n.d. ¹⁾
Spleen	78	n.d. ²⁾	1.2	n.d. ²⁾

¹⁾ The calibration reference for planar scans of Patient 1 was the whole-body scan. As Patient 2 emptied the bladder before the first scan, the simultaneously scanned vial had to be used as a reference.

²⁾ As Patient 2 had multiple liver metastases, the mean absorbed dose to the liver could not be determined.

³⁾ As Patient 2 underwent splenectomy, a mean absorbed dose to the spleen could not be determined.