

Effect of third- and fourth-line systemic therapies for metastatic renal cell carcinoma

Sei Naito^{*}, Osamu Ichiiyanagi, Tomoyuki Kato, Hidenori Kanno, Takafumi Narisawa, Masayuki Kurokawa, Masaki Ushijima, Michinobu Ozawa, Mayu Yagi, Yuta Kurota, Hiroki Fukuhara, Atsushi Yamagishi,
Toshihiko Sakurai, Hayato Nishida, Hisashi Kawazoe, Takuya Yamanobe, and Norihiko Tsuchiya.

Department of Urology, Yamagata University Faculty of Medicine, Iida-nishi 2-2-2, Yamagata, 990-9585, Japan.

Tel: +81-23-628-5368; Fax: +81-23-628-5370

*Corresponding author: e-mail: seinaitoh@ybb.ne.jp

Running title: 3rd- and 4th-line therapies for mRCC

Supplementary Table 2. Duration and PFS each drug type each line

	1st line			2nd line			3rd line			4th line			5th line			6th line		7th line		8th line				
	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **			
αVE GF	12 6	4.5 (0.1- 43.5)	6.2 (4.1- 8.8)	7 6	2.2 (0.1- 75.8)	2.5 (1.0- 5.7)	2 4	2.9 (0.2- 49.8)	4.1 (2.2- 18.9)	1 4	2.4 (0.9- 9.2)	3.7 (1.4- 7.6)	5	2.1 (1.1- 6.2)	3.4 (1.8- NA)	5	4.6 (0.6- 18.6)	4.6 (0.6- NA)	1	2.1	2.1	1	3.0	3.0
mTO RI	9	1.1 (0.1- 4.2)	1.4 (0.1- 2.1)	1 2	1.9 (0.2- 54.3)	3.5 (1.0- NA))	1 5	1.8 (0.4- 23.9)	2.0 (0.8- 4.2)	7	5.4 (0.7- 15.0)	5.4 (0.7- NA)	3	1.6 (1.6- 6.7)	1.6 (1.6- NA)	0			0			0		
IoT	1	5.5	NA	2	1.84	NA	9	3.1 (0.7- 8.7)	3.7 (0.7- 5.5)	2	4.0 (3.4- 4.7)	4.0 (3.4- NA)	4	4.3 (0.2- 11.7)	0.7 (0.2- NA)	0			1	7.4	7.4	0		
other	7	2.5 (1.6- 26.2)	2.5 (1.6- 19.5)	5	71.2 (2.5- 140.1)	2.5 (2.5- NA)	4	2.4 (1.1- 2.6)	2.4 (1.1- NA)	3	2.3 (0.5- 5.1)	5.1 (0.5- NA)	3	1.2 (0.8- 3.6)	1.3 (0.9- NA)	0			1	0.4	0.4	0		
	1st line			2nd line			3rd line			4th line			5th line			6th line		7th line		8th line				
	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **	N	DURATIO N*	PFS **
αVE GF	93	3.2 (0.1- 43.5)	4.7 (2.8- 8.7)	5 7	1.5 (0.1- 15.2)	1.8 (0.9- 2.9)	1 9	2.5 (0.2- 38.4)	3.2 (1.4- 4.8)	1 1	2.4 (0.9- 7.8)	3.7 (0.9- 7.6)	4	3.2 (1.1- 6.2)	4.6 (1.8- NA)	4	4.6 (0.6- 18.6)	4.6 (0.6- NA)	1	2.1	2.1	1	3.0	3.0
mTO RI	9	1.1 (0.1- 4.2)	1.4 (0.1- 2.1)	1 0	1.9 (0.2- 10.6)	1.9 (1.0- NA)	1 3	1.3 (0.4- 12.4)	1.3 (0.7- 3.7)	6	2.1 (0.7- 15.0)	2.1 (0.7- NA)	3	1.6 (1.6- 6.7)	1.6 (1.6- NA)	0			0			0		
IoT	0			0			5	1.8 (0.7- 5.5)	3.7 (0.7- NA)	1	3.4	3.4	1	0.2	0.2	0			0			0		
other	5	2.5 (1.6- 19.5)	2.5 (1.6- NA)	4	2.5	2.5 (NA- NA)	3	2.5 (2.5- 2.6)	2.5 (2.5- NA)	2	2.8 (0.5- 5.1)	2.8 (0.5- NA)	2	2.3 (0.9- 3.6)	2.3 (0.9- NA)	0			1	0.4	0.4	0		

*DURATION; duration from start of treatment to date of progression or last follow-up, **PFS; progression free survival

Supplementary Table 3. Sequence until third-line therapy

sequence	N	%
α VEGF/ α VEGF/ α VEGF	17	32.7
α VEGF/ α VEGF/mTORI	12	23.1
α VEGF/ α VEGF/IoT	9	17.3
α VEGF/ α VEGF/other	3	5.8
α VEGF/mTORI/ α VEGF	1	1.9
α VEGF/mTORI/mTORI	1	1.9
α VEGF/mTORI/other	1	1.9
mTORI/ α VEGF/ α VEGF	1	1.9
other/ α VEGF/ α VEGF	2	3.8
other sequence	5	9.6