

Supplemental Materials

Supplemental Table 1. Patient characteristics

Patient #	Age (years)	Sex	Prior nephrectomy	Histology	IMDC risk group	Sites of metastasis^a
1	62	Male	Yes	Clear cell + rhabdoid and sarcomatoid transformation	Intermediate	Lungs, lymph nodes
2	54	Male	Yes	Clear cell + rhabdoid and sarcomatoid transformation	Intermediate	Lungs, bones, brain
3	39	Male	Yes	Clear cell + rhabdoid transformation	Poor	Lungs, liver
4	63	Male	Yes	Clear cell	Intermediate	Lungs, lymph nodes, nephrectomy bed nodule
5	56	Male	Yes	Clear cell	Poor	Lungs, lymph nodes, brain, bones, adrenal glands
6	63	Male	No	Clear cell	Poor	Lungs, Bones, Brain
7	57	Male	Yes	Clear cell with sarcomatoid changes	Intermediate	Lymph nodes, Bones

^aAt the time of initiation of lenvatinib plus everolimus treatment.

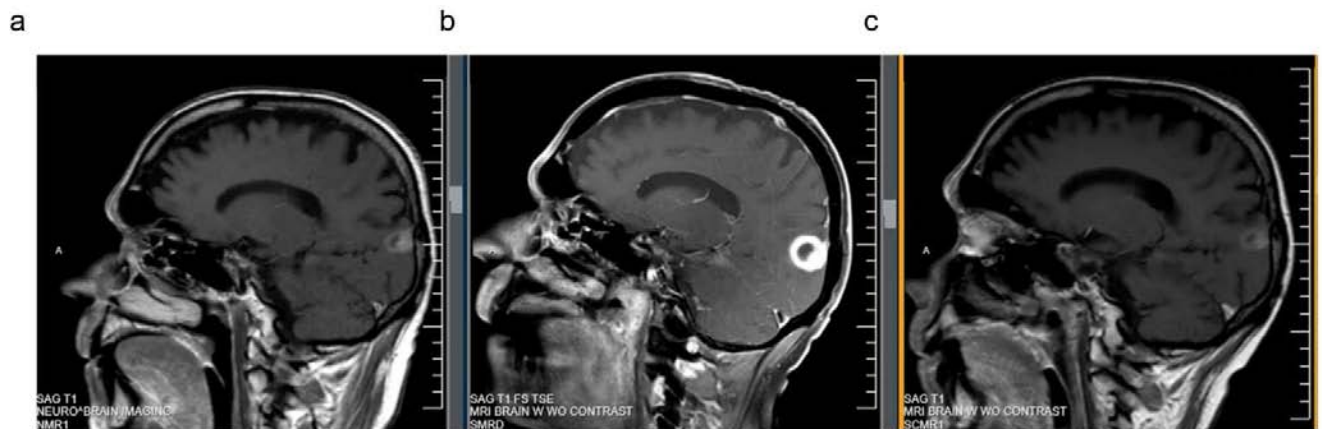
IMDC, International Metastatic renal cell carcinoma Database Consortium.

Supplemental Table 2. Genomic and PD-L1 data

Patient #	Genomic variants	Copy number variations	PD-L1 expression
1	<i>PBRM1</i> LOF <i>VHL</i> LOF <i>PTEN</i> LOF <i>ARID1A</i> LOF <i>LIFR</i> frameshift	None	Not assessed
2	Not assessed	Not assessed	Not assessed
3	<i>VHL</i> LOF <i>SETD2</i> LOF <i>ARID2</i> GOF	<i>CDKN1B</i> CNG	Negative
4	<i>VHL</i> LOF	None	Negative
5	<i>PBRM1</i> LOF	None	Positive
6	<i>VHL</i> LOF <i>PIK3R1</i> LOF <i>KDM5C</i> LOF	<i>PTEN</i> CNL <i>CDKN2A</i> CNL <i>CDKN2B</i> CNL <i>MTAP</i> CNL	Negative
7	None	<i>CDKN2A</i> CNL <i>CDKN2B</i> CNL <i>MTAP</i> CNL	Negative

CNG, Copy Number Gain; CNL, Copy Number Loss; GOF, gain of function; LOF, loss of function; PD-L1, programmed death ligand-1.

Supplemental Figure 1. Imaging results for Patient 1 with mRCC who received lenvatinib plus everolimus treatment. The first image (MRI of the brain) shows the tumor size (mid-right side of the brain) after treatment for 2 weeks (a); the patient then discontinued treatment due to toxicity and experienced a rapid progression 5 days later (b; tumor regrowth); after which, the patient resumed lenvatinib plus everolimus treatment and experienced a rapid improvement (as indicated by the brain MRI taken approximately 2 weeks later) (c).



MRI, magnetic resonance imaging; mRCC, metastatic renal cell carcinoma.