

Table SI. Detailed quality assessment of the included cohort studies.

Author, year	Enrollment criteria	Interventions	Treatment duration before surgery	Treatment-related adverse effects graded ≥ 3	(Refs.)
Hatiboglu <i>et al</i> , 2017	Clinical stage 1-3 RCC	Sorafenib + surgery vs. placebo + surgery	5-24 days, 28 days	Hand foot syndrome, hypertension and generalized exanthema	(19)
Voylenko <i>et al</i> , 2020	Localized RCC	Pazopanib + surgery vs. surgery alone	2 cycles, 8 weeks	NA	(20)
Semko <i>et al</i> , 2021	Localized RCC	Pazopanib + surgery vs. surgery alone	2 cycles, 8 weeks	NA	(22)
McDonald <i>et al</i> , 2018	Patients with RCC who underwent PN	Sunitinib + surgery vs. surgery alone	2 cycles, 6 weeks	NA	(25)
Harshman <i>et al</i> , 2013	Advanced RCC	sunitinib or sorafenib + surgery vs. surgery alone	17 weeks ^a	NA	(27)
Okamura <i>et al</i> , 2019	Advanced RCC with level III or IV IVC tumor thrombus	Pazopanib + surgery vs. surgery alone	12 weeks	Thrombocytopenia and hand foot syndrome	(24)
Chapin <i>et al</i> , 2011	Metastatic RCC	Targeted therapy + surgery vs. surgery alone	1.4 months ^a	NA	(26)
Tanaka <i>et al</i> , 2018	Patients with RCC with IVC thrombus	Axitinib + surgery vs. surgery alone	NA	Hypertension and diarrhea	(23)
Field <i>et al</i> , 2019	Patients with RCC with tumor thrombus	Sunitinib + surgery vs. surgery alone	3 cycles	NA	(21)

^aMean.RCC, renal cell carcinoma; PN, partial nephrectomy; IVC, inferior vena cava; NA, not available.

Table SII.NOS scoring of the studies included in the meta-analysis.

NOS item	McDonald <i>et al</i> (25)	Harshman <i>et al</i> (27)	Okamura <i>et al</i> (24)	Chapin <i>et al</i> (26)	Tanaka <i>et al</i> (23)	Field <i>et al</i> (21)
Selection						
Representativeness of the exposed cohort	*	*	*	*	*	*
Selection of the non-exposed cohort	*	*	*	*	*	*
Ascertainment of exposure	*	*	*	*	*	*
Demonstration that outcome of interest was not present at start of study	*	*	*	*	*	*
Comparability						
Comparability of cohorts on basis of the design or analysis	*	*	**	*	**	**
Outcome						
Assessment of outcome	*	*	*	*	*	*
Was follow-up long enough for outcomes to occur?		*		*		*
Adequacy of follow-up of cohorts	*	*	*	*	*	*
Total	7	8	8	8	8	9

A study can be awarded a maximum of one star for each numbered item within the ‘Selection’ and ‘Outcome’ categories. A maximum of two stars can be given for ‘Comparability’. Studies rated ≥ 6 are eligible for inclusion in the meta-analysis. NOS, Newcastle-Ottawa Scale.