Supplemental table 1. Data extracted from the excluded studies and the reasons for exclusion

Questionnaire	naire Author Year Number of each intervention		Timing of the evaluations	Reasons for exclusion			
FACT-Hep	Poon 2001	66 hepatectomy 10 TACE	Pre, 3 M, 6 M, 12 M, 24 M	Different comparison			
	Eid 2006	16 minor hepatectomy + ablation 24 major hepatectomy	6 W, 6 M	No preoperative data (EORTC QLQ-C30)			
	Huang 2014	121 RFA 225 hepatectomy	Pre, 3 M, 6 M, 12 M, 36 M	No specific data for each timepoint Only graphs were presented			
	Toro 2012	14 hepatectomy 15 TACE	Pre, 3 M, 6 M, 12 M, 24 M	Different comparison			
EORTC QLQ-C30	Banz 2009	46 benign tumors 89 malignant tumors	At random	No preoperative data and no appropriate timepoints			
	Kamphues 2011	27 FNH 14 hemangioma 9 echinococcosis	56 M (17–76 M)	No appropriate timepoints			
	Chie 2015	53 Hepatectomy 53 Ablation 65 TACE	0.43 Y (0.9 IQR) 3.14 Y (3.42 IQR) 1.34 Y (1.56 IQR)	No preoperative data and no appropriate timepoints			
	Heise 2017	122 Primary hepatectomy 38 secondary hepatectomy	21 M (2-72 M range)	No appropriate timepoints			
	Wanis 2017	47 CRLM with ALPPS	29 M (19–41 IQR)	No appropriate timepoints Extensive intervention			
	Studer 2018	58 Benign tumors 130 Malignant tumors	Pre, 1 M, 3 M, 6 M, 12 M	No specific data for each timepoint			

RFA: radiofrequency ablation, FNH: focal nodular hyperplasia, IQR: interquartile range, TACE: transarterial chemoembolization, CRLM: colorectal liver metastasis, ALPPS: associating liver partition and portal vein ligation for staged hepatectomy

Supplemental table 2. Data extracted from the excluded studies and the reasons for exclusion

Questionnaire	sestionnaire Author Year Number of each inte		Timing of the evaluations	Reasons for exclusion			
SF-36	Bruns 2010	55 Major hepatectomy 41 Minor hepatectomy (CRLM, HCC, CCC, benign)	3–36 M	No appropriate timepoints			
	Borrego-Estella 2012	30 CRLM	Pre, 4 W	No appropriate timepoints			
	Mise 2014	69 HCC	Pre, 3 M, 6 M, 9 M, 12 M	No specific data for each timepoint Only graphs were presented			
	Xie 2015	58 Hepatectomy 44 TACE	Pre, 1 M, 3 M, 6 M, 12 M, 24 M	No specific data for each timepoint Only graphs were presented			
	Dunne 2016	19 prehabilitation 16 Standard care	Pre, 4 W	No appropriate timepoints			
	Lei 2016	110 Hepatectomy 95 liver transplantation	More than 3 Y	No appropriate timepoints			
	He 2018	48 ERAS 49 Standard care	Pre, 2 M, 4 M, 6 M, 8 M, 10 M, 20 M, 30 M, 40 M	No specific data for each timepoint Only graphs were presented			

 $CRLM: colorectal\ liver\ metastasis,\ HCC: hepatocellular\ carcinoma,\ CCC: cholangiocellular\ carcinoma,\ TACE:\ transarterial\ chemoembolization,\ ERAS:\ enhanced\ recovery\ after\ surgery$

Supplemental table 3. Data extracted from the excluded studies and the reasons for exclusion

Questionnaire	Author Year	Number of each intervention	Timing of the evaluations	Reasons for exclusion
GQLI	Chen 2004	30 HCC 3 CCC 3 sarcoma	Pre, 2 W, 5 W, 10 W, 4 M, 6 M, 9 M, 12 M, 18 M, 24 M	No SD values
WHOQOL- BREF	Lee 2007	161 HCC 8911 healthy controls	Pre	No appropriate timepoints
EQ-5D	Wiering 2011	117 hepatectomy	Pre, 2 W, 1 M, 3 M, 6 M, 9 M, 12 M, 15 M, 18 M, 21 M, 24 M, 27 M, 30 M, 33 M, 36 M	No data description
EQ-5D-3L	Perrakis 2012	78 hepatectomy 69 observational controls	0 to 248 months (median, 109 months; mean, 113 months)	No appropriate timepoints
Norfolk QoL-NETs EORTC QLQ-C30	Spolverato 2015	85 NET liver metastases 50 hepatectomy 5 hepatectomy with ablation 30 non-surgical management	No specific timepoints for comparisons between before and after treatment	No data description

HCC: hepatocellular carcinoma, CCC: cholangiocellular carcinoma, SD: standard deviation, NET: neuroendocrine tumor

Supplemental table 4. Data extracted from the included studies

Author Year	Selection			Comparability		Outcome		Total		
Author rear	1	2	3	4	5A	5B	6	7	8	Score
Martin 2007	*		*	*	*		*	*		6
Liu 2012	*	*	*	*	*		*	*	*	8
Giuliani 2014	*	*	*	*			*	*	*	7
Qiu 2015	*	*	*	*			*	*		6
Chiu 2018	*	*	*	*			*	*	*	7
Liu 2019	*	*	*	*	*	*	*		*	8
Dasgupta 2008	*	*	*	*	*		*	*		7
Rees 2012	*	*	*	*			*	*		6

1. Exposed cohort truly/somewhat representative, 2. Non-exposed cohort drawn from same community, 3. Ascertainment of exposure, 4. Outcome of interest not present at start, 5A. Cohorts controlled for age and sex, 5B. Cohorts controlled for other important factors, 6. Quality of outcome assessment, 7. Follow-up long enough for outcomes to occur, 8. Complete accounting for cohorts