

Table S1 Search strategy (date: 2021/11/20)

Database	Step	Search strategy	Numbers
PubMed			
Patient	#1	((("Carcinoma, Hepatocellular"[Mesh]) OR (((((((((((((((Carcinomas, Hepatocellular[Title/Abstract]) OR (Hepatocellular Carcinomas[Title/Abstract])) OR (Liver Cell Carcinoma, Adult[Title/Abstract])) OR (Liver Cancer, Adult[Title/Abstract])) OR (Adult Liver Cancer[Title/Abstract])) OR (Adult Liver Cancers[Title/Abstract])) OR (Cancer, Adult Liver[Title/Abstract])) OR (Cancers, Adult Liver[Title/Abstract])) OR (Liver Cancers, Adult[Title/Abstract])) OR (Liver Cell Carcinoma[Title/Abstract])) OR (Carcinoma, Liver Cell[Title/Abstract])) OR (Carcinomas, Liver Cell[Title/Abstract])) OR (Cell Carcinoma, Liver[Title/Abstract])) OR (Cell Carcinomas, Liver[Title/Abstract])) OR (Liver Cell Carcinomas[Title/Abstract])) OR (Hepatocellular Carcinoma[Title/Abstract])) OR (Hepatoma[Title/Abstract])) OR (Hepatomas[Title/Abstract])))	147,530
Intervention	#2	((((PLR[Title/Abstract]) OR (platelet lymphocyte ratio[Title/Abstract])) OR (platelet to lymphocyte ratio[Title/Abstract])) OR (platelet-to-lymphocyte ratio[Title/Abstract])) OR (platelet-lymphocyte ratio[Title/Abstract]))	4,797
Outcome	#3	(((((clinical outcome[Title/Abstract]) OR (survival[Title/Abstract])) OR ((("Prognosis"[Mesh]) OR (((Prognoses[Title/Abstract]) OR (Prognostic Factors[Title/Abstract])) OR (Factor, Prognostic[Title/Abstract])) OR (Factors, Prognostic[Title/Abstract])) OR (Prognostic Factor[Title/Abstract])))	2,558,147
All	#4	#1 AND #2 AND #3	154
Embase			
Patient	#1	'liver cell carcinoma'/exp OR 'carcinoma, hepatic cell':ab,ti OR 'carcinoma, hepatocellular':ab,ti OR 'carcinoma, liver':ab,ti OR 'carcinoma, liver cell':ab,ti OR 'hepatic carcinoma':ab,ti OR 'hepatic cell carcinoma':ab,ti OR 'hepatocarcinoma':ab,ti OR 'hepatocellular carcinoma':ab,ti OR 'hepatoma':ab,ti OR 'liver carcinoma':ab,ti OR 'liver carcinoma rupture':ab,ti OR 'malignant hepatoma':ab,ti OR 'primary liver carcinoma':ab,ti	221,857
Intervention	#2	plr:ab,ti OR 'platelet lymphocyte ratio':ab,ti OR 'platelet to lymphocyte ratio':ab,ti OR 'platelet-to-lymphocyte ratio':ab,ti OR 'platelet-lymphocyte ratio':ab,ti	7,192
Outcome	#3	prognosis:ab,ti OR prognoses:ab,ti OR 'prognostic factors':ab,ti OR 'factor, prognostic':ab,ti OR 'factors, prognostic':ab,ti OR 'prognostic factor':ab,ti OR 'clinical outcome':ab,ti OR 'survival':ab,ti	2,122,082
All	#4	#1 AND #2 AND #3	220
Cochrane			
Patient	#1	MeSH descriptor: [Carcinoma, Hepatocellular] explode all trees	1,866
	#2	(Carcinomas, Hepatocellular):ti,ab,kw OR (Hepatocellular Carcinomas):ti,ab,kw OR (Liver Cell Carcinoma, Adult):ti,ab,kw OR (Liver Cancer, Adult):ti,ab,kw OR (Adult Liver Cancer):ti,ab,kw OR (Adult Liver Cancers):ti,ab,kw OR (Cancer, Adult Liver):ti,ab,kw OR (Cancers, Adult Liver):ti,ab,kw OR (Liver Cancers, Adult):ti,ab,kw OR (Liver Cell Carcinoma):ti,ab,kw OR (Carcinoma, Liver Cell):ti,ab,kw OR (Carcinomas, Liver Cell):ti,ab,kw OR (Cell Carcinoma, Liver):ti,ab,kw OR (Cell Carcinomas, Liver):ti,ab,kw OR (Liver Cell Carcinomas):ti,ab,kw OR (Hepatocellular Carcinoma):ti,ab,kw OR (Hepatoma):ti,ab,kw OR (Hepatomas):ti,ab,kw 9816	9,816
	#3	#1 OR #2	221,857
	#4	(PLR):ti,ab,kw OR (platelet lymphocyte ratio):ti,ab,kw OR (platelet to lymphocyte ratio):ti,ab,kw OR (platelet-to-lymphocyte ratio):ti,ab,kw OR (platelet-lymphocyte ratio):ti,ab,kw 312	312
	#5	(Clinical Outcome):ti,ab,kw OR (Survival):ti,ab,kw OR (Prognosis):ti,ab,kw OR (Prognoses):ti,ab,kw OR (Prognostic Factors):ti,ab,kw OR (Factor, Prognostic):ti,ab,kw OR (Factors, Prognostic):ti,ab,kw OR (Prognostic Factor):ti,ab,kw	404,037
	#6	#3AND #4AND #5	11
Web of Science			
Patient	#1	TS = (Carcinoma, Hepatocellular OR Carcinomas, Hepatocellular OR Hepatocellular Carcinomas OR Liver Cell Carcinoma, Adult OR Liver Cancer, Adult OR Adult Liver Cancer OR Adult Liver Cancers OR Cancer, Adult Liver OR Cancers, Adult Liver OR Liver Cancers, Adult OR Liver Cell Carcinoma OR Carcinoma, Liver Cell OR Carcinomas, Liver Cell OR Cell Carcinoma, Liver OR Cell Carcinomas, Liver OR Liver Cell Carcinomas OR Hepatocellular Carcinoma OR Hepatoma OR Hepatomas)	330,667
Intervention	#2	TS = (PLR OR platelet lymphocyte ratio OR platelet to lymphocyte ratio OR platelet-to-lymphocyte ratio OR platelet-lymphocyte ratio)	9,116
Outcome	#3	TS = (clinical outcome OR survival OR Prognosis OR Prognoses OR Prognostic Factors OR Factor, Prognostic OR Factors, Prognostic OR Prognostic Factor)	4,051,779
All	#4	#1 AND #2 AND #3	398

Table S2 NOS criteria for cohort studies

Study	1	2	3	4	5	6	7	8	Total quality scores
Shen <i>et al.</i> , 2019, (18)	★	★	★	\	★	★	★	★	7
Yang <i>et al.</i> , 2020, (6)	★	★	★	\	★★	★	★	★	8
Qin <i>et al.</i> , 2020, (25)	★	★	★	\	★	★	★	★	7
Chen <i>et al.</i> , 2021, (26)	★	★	★	\	★	★	★	★	7
Xin <i>et al.</i> , 2021, (27)	★	★	★	\	★	★	★	★	7
Li <i>et al.</i> , 2020, (28)	★	★	★	\	★	★	★	★	7
Yang <i>et al.</i> , 2018, (16)	★	★	★	\	★	★	★	★	7
Nakano <i>et al.</i> , 2021, (29)	★	★	★	\	★	★	★	★	7
Itoh <i>et al.</i> , 2019, (30)	★	★	★	\	★	★	★	★	7
Wu <i>et al.</i> , 2021, (31)	★	★	★	\	★	★	★	★	7
Yilmaz <i>et al.</i> , 2021, (32)	★	★	★	\	★	★	★	★	7
Zhang <i>et al.</i> , 2021, (33)	★	★	★	\	★★	★	★	★	8
Tada <i>et al.</i> , 2021, (34)	★	★	★	\	★★	★	★	★	8
Chen <i>et al.</i> , 2018, (35)	★	★	★	\	★	★	★	★	7
Tian <i>et al.</i> , 2016, (17)	★	★	★	\	★★	★	★	★	8
Ji <i>et al.</i> , 2016, (36)	★	★	★	\	★	★	★	★	7
Wu <i>et al.</i> , 2020, (37)	★	★	★	\	★	★	★	★	7
Pang <i>et al.</i> , 2018, (38)	★	★	★	\	★★	★	★	★	8
Long <i>et al.</i> , 2020, (39)	★	★	★	\	★	★	★	★	7
Xue <i>et al.</i> , 2015, (40)	★	★	★	\	★★	★	★	★	8
Liu <i>et al.</i> , 2019, (41)	★	★	★	\	★★	★	★	★	8

1, representativeness of the exposed cohort; 2, selection of the non-exposed cohort; 3, ascertainment of exposure; 4, demonstration that the outcome of interest was not present at the start of the study; 5, comparability of cohorts based on the design or analysis; 6, assessment of outcome; 7, was follow-up long enough for outcomes to occur; 8, adequacy of follow up of cohorts. “★” means one point; “\” means no description or statement. NOS, Newcastle-Ottawa Scale.

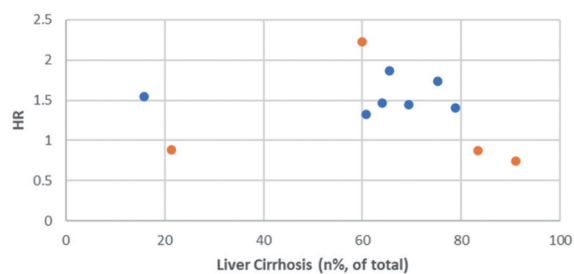


Figure S1 Scatter plot of the association between the HR and the proportion of liver cirrhosis patients (the blue dots represent $P < 0.05$, the orange dots represent $P > 0.05$). HR, hazard ratio.