

**Chronic liver disease independently
associated with COVID-19 severity: Evidence
based on adjusted effect estimates**

SUPPLEMENTARY FILE

Tables & Figures

Table S1 Subgroup analysis and meta-regression

Variables	No. of studies	Meta-regression			Subgroup analysis		Heterogeneity		
		Tau ²	t-Value	P value	Pooled ES (95% CI)	P value	I ²	χ ²	P value
Sample size		0.128	1.37	0.182					
≥ 1000	16				1.36 (1.14-1.64)	0.001	38.3%	24.32	0.060
< 1000	13				1.73 (1.12-2.68)	0.014	66.9%	36.23	< 0.001
Age (years)		0.170	0.29	0.770					
≥ 60	18				1.53 (1.23-1.91)	< 0.001	47.3%	30.17	0.025
< 60	11				1.44 (0.88-2.36)	0.151	86.8%	75.58	< 0.001
Male (%)		0.167	0.10	0.918					
≥ 55	14				1.48 (1.17-1.88)	0.001	57.4%	30.52	0.004
< 55	15				1.51 (0.99-2.30)	0.057	78.2%	64.30	< 0.001
Effect estimate		0.162		0.397					
HR	11		0.11	0.911	1.33 (1.03-1.72)	0.030	38.2%	16.18	0.095
OR	17		0.57	0.575	1.75 (1.19-2.58)	0.005	90.7%	172.18	< 0.001
RR	1		-	-	1.19 (0.45-3.17)	0.728	-	-	-
Region		0.177		0.374					
Asia	14		0.44	0.660	1.28 (0.78-2.12)	0.330	86.2%	93.89	< 0.001
North America	7		-	-	1.49 (1.18-1.87)	0.001	0.00%	4.43	0.619
Europe	8		0.76	0.454	1.82 (1.32-2.52)	< 0.001	64.3%	19.62	0.006
Study design		0.169	0.46	0.646					
Retrospective	24				1.57 (1.13-2.18)	0.008	89.1%	211.61	< 0.001
Others	5				1.45 (1.15-1.83)	0.001	16.8%	4.81	0.308

Note: CI, confidence interval; HR, hazard ratio; OR, odds ratio; RR, relative risk; ES, effect size.

Figure S1 Flow diagram of study selection

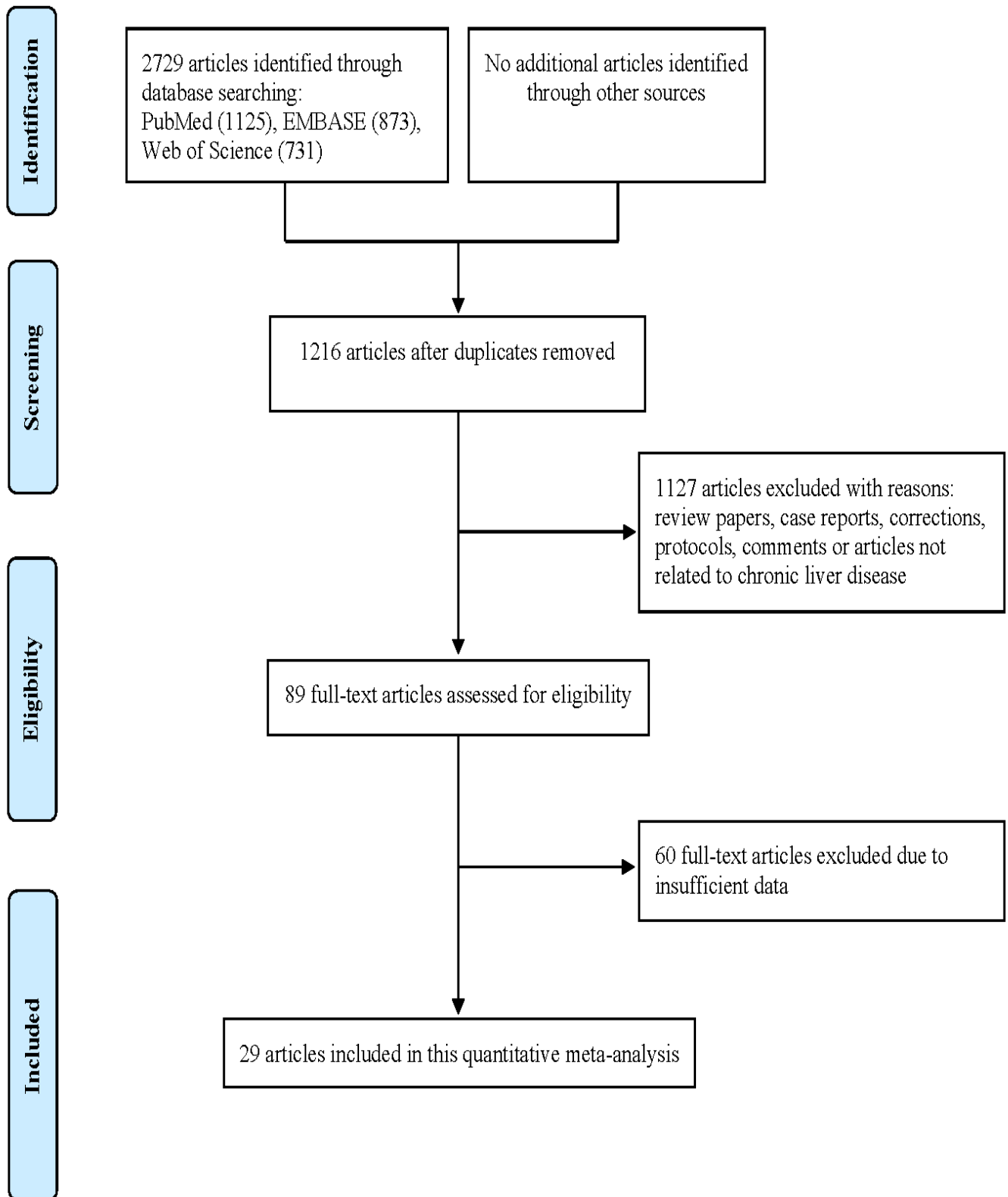


Figure S2 The association between chronic liver disease and COVID-19 severity: Subgroup analysis by sample size. * indicates combined value calculated from subgroups.

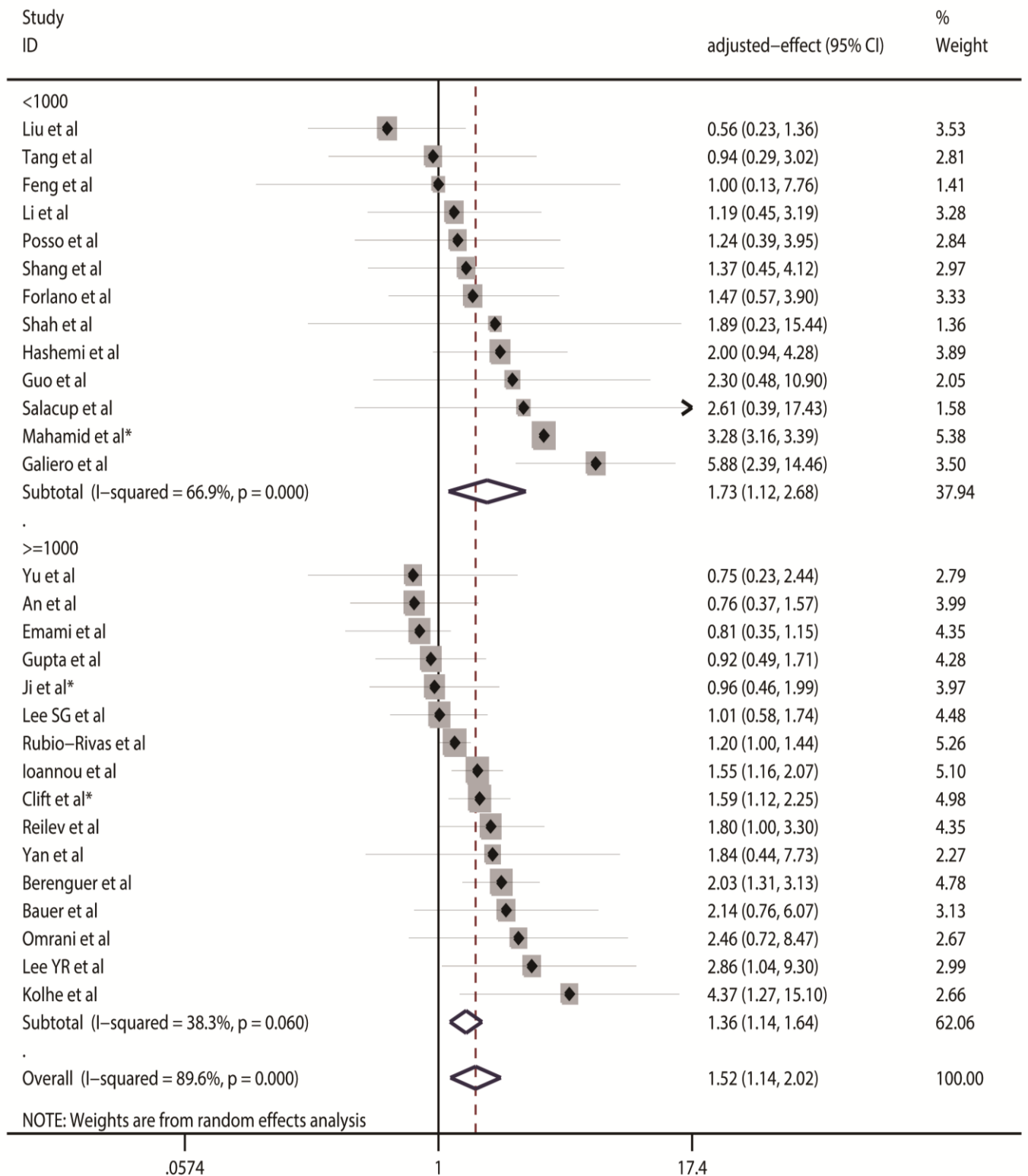


Figure S3 The association between chronic liver disease and COVID-19 severity: Subgroup analysis by study design. * indicates combined value calculated from subgroups.

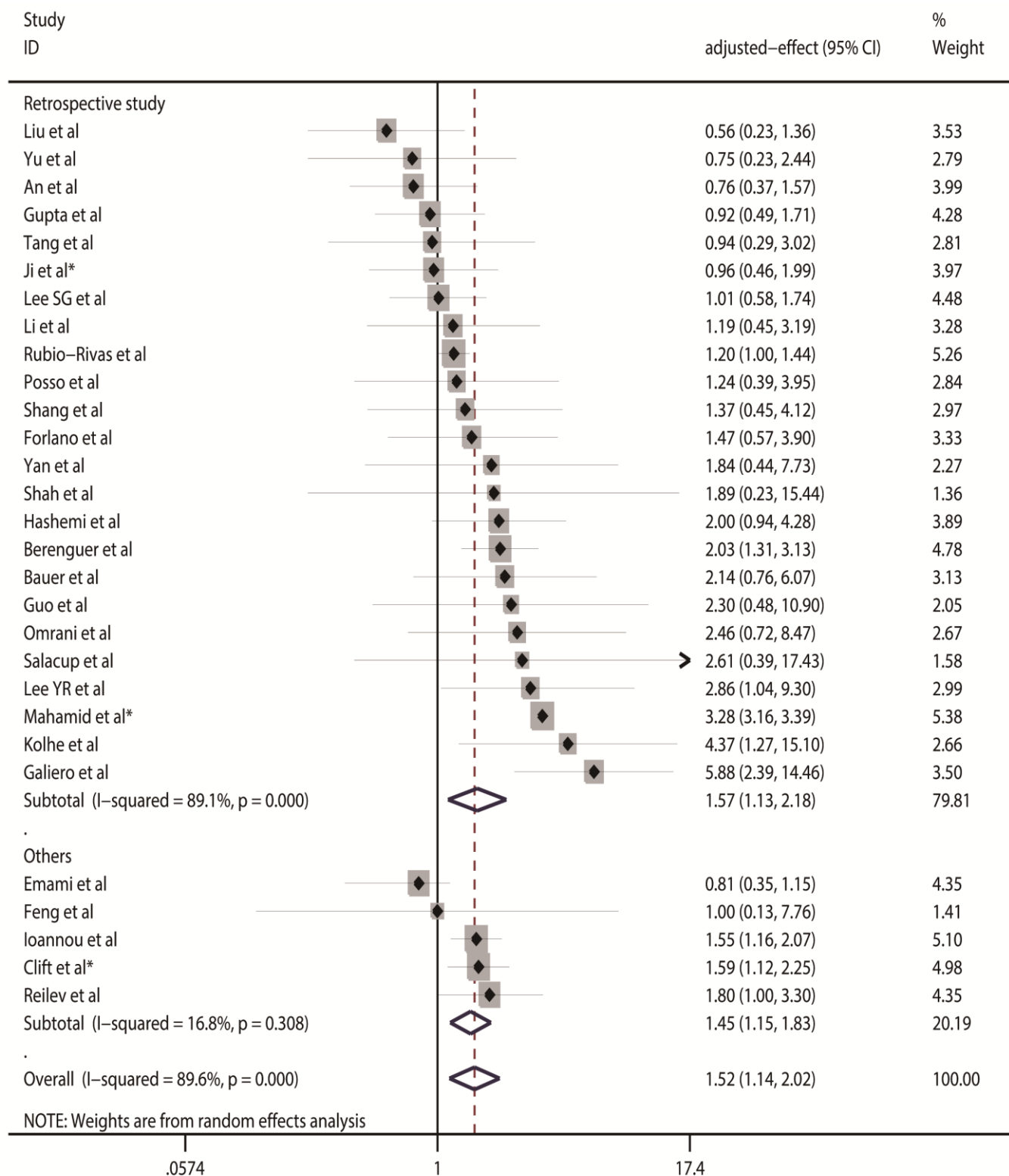


Figure S4 The association between chronic liver disease and COVID-19 severity: Subgroup analysis by age.
 * indicates combined value calculated from subgroups.

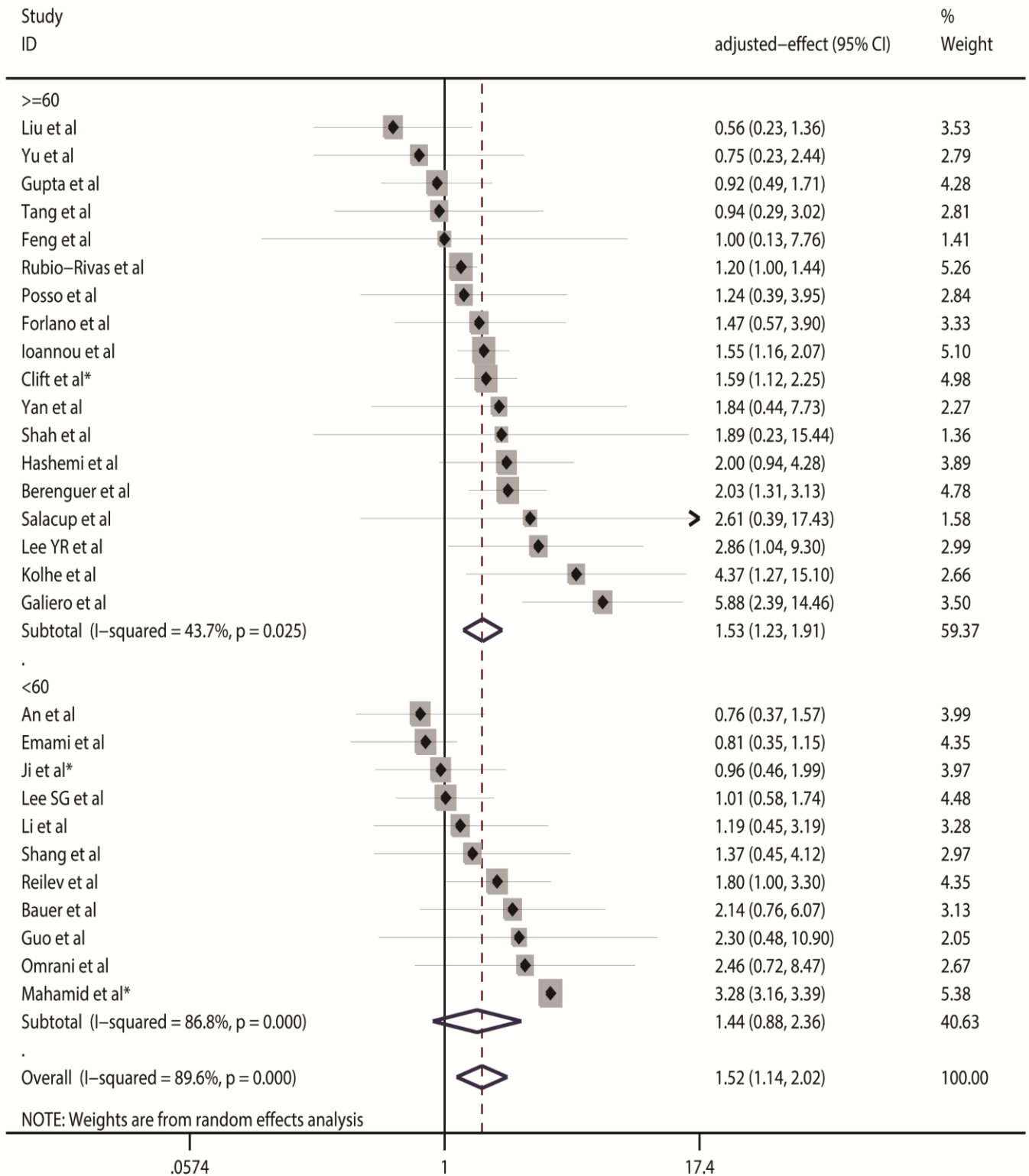


Figure S5 The association between chronic liver disease and COVID-19 severity: Subgroup analysis by male percentage (%). * indicates combined value calculated from subgroups.

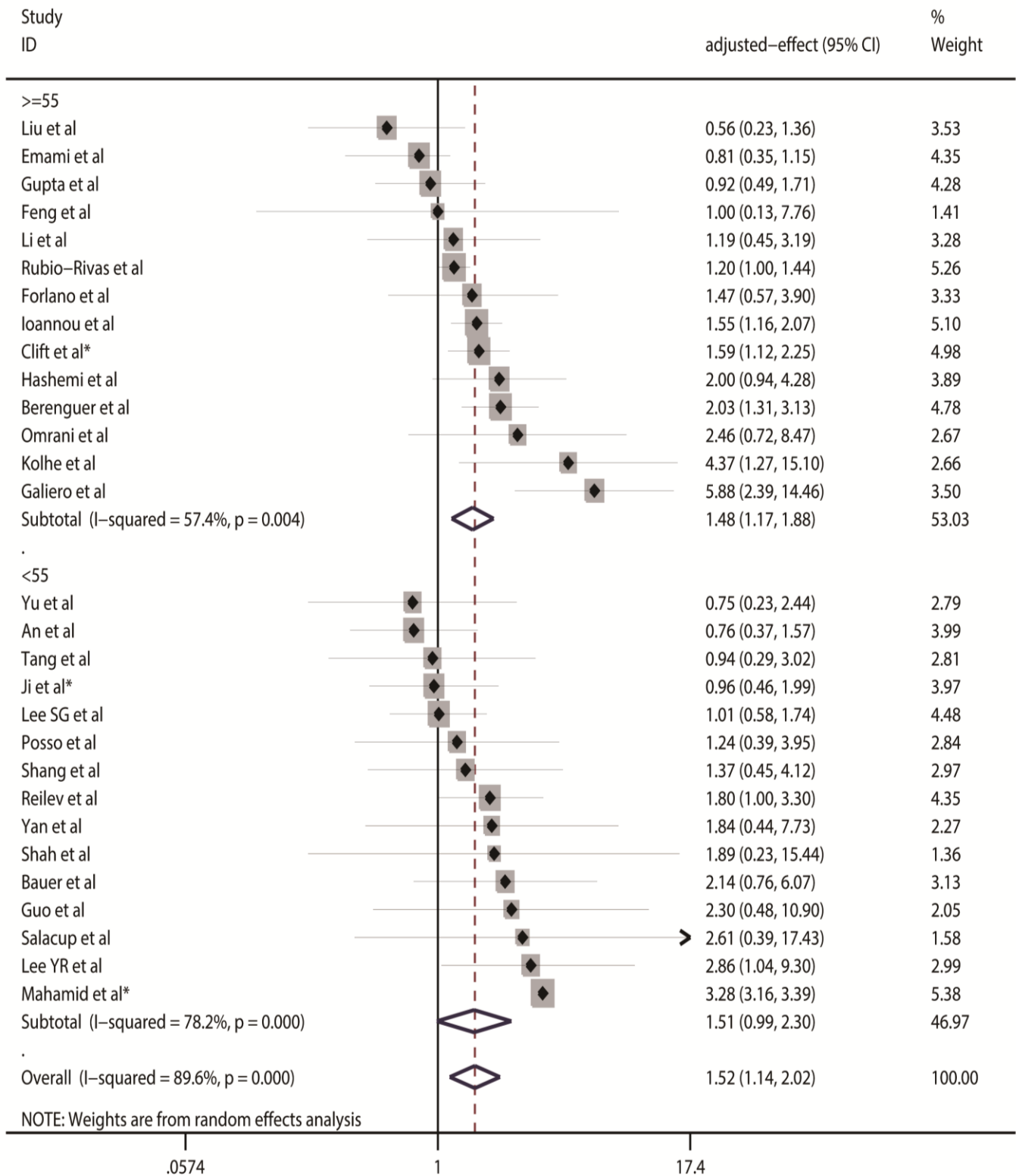


Figure S6 The association between chronic liver disease and COVID-19 severity: Subgroup analysis by effect estimates. HR, hazard ratio; OR, odds ratio, RR, relative risk. * indicates combined value calculated from subgroups.

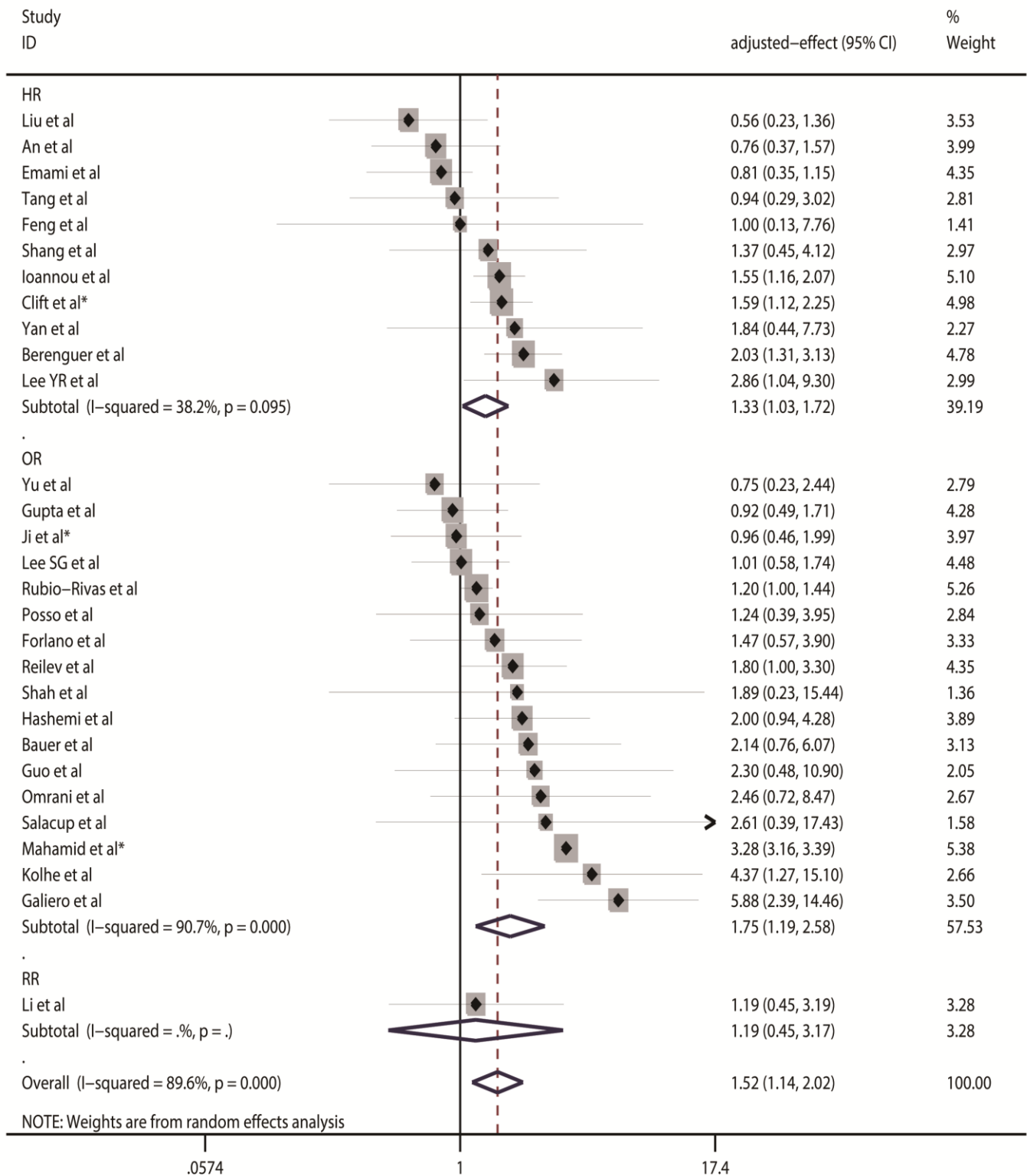


Figure S7 The association between chronic liver disease and COVID-19 severity: Subgroup analysis by region. * indicates combined value calculated from subgroups.

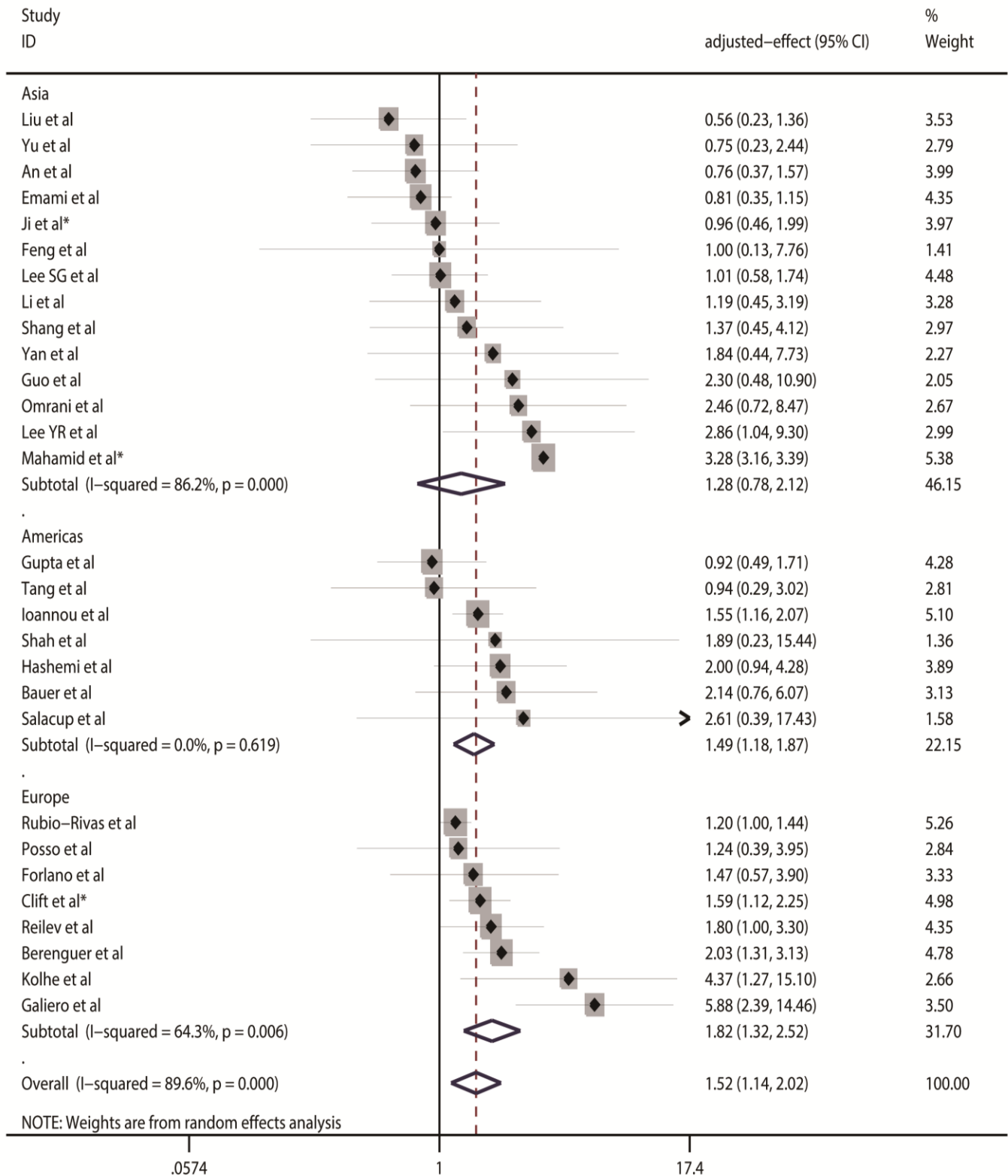


Figure S8 Publication bias was assessed by Begg's test (A) and Egger's test (B).

