Table 6 Results of evidence quality.

Author , year	Outcomes	Intervention *vs.* comparison	Studies (participants)	Limitations	Inconsistency	Indirectness	Imprecision	Publication bias	Relative effect (*95% CI)	Heterogeneity	Quality
Liu FS, 2012 [26]	The effective rate of lowering blood pressure	acupuncture *vs.* western medicine	7(612)	-1①	0	0	-1③	0	OR = 0.93 (0.60,1.45)	I^2=49%	L
		acupuncture+ western medicine *vs.* western medicine	3(175)	-1①	0	0	-1③	-1⑤	OR = 2.95 (1.45,6.01)	I^2=0%	VL
	The effective rate of improving symptoms	acupuncture *vs.* western medicine	3(180)	-1①	0	0	-1③	-1⑤	OR = 2.56 (1.22,5.39)	I^2=0%	VL
		acupuncture+ western medicine *vs.* western medicine	1(60)	-1①	0	0	-2③	-1⑤	OR = 9.33， (1.87,46.68)	I^2=0%	VL
Yu H,2013 [27]	The effective rate of lowering blood pressure	acupuncture *vs.* western medicine	14(1164)	-1①	-1②	0	0	0	RR = 1.036， (0.946, 1.135)	I^2=64.7%	L
	The efficacy of improving SBP		10(768)	-1①	-1②	0	0	0	SMD = -0.12 (-0.378,0.129)	I^2=66.4%	L
	The efficacy of improving DBP		10(768)	-1①	0	0	0	0	SMD = -0.051 (-0.195,0.092)	I^2=44.9%	M
Zhang LL, 2013 [28]	The effect of reducing the magnitude of SBP	acupuncture *vs.* western medicine	8(772)	-1①	-1②	0	-1③	0	MD = 1.35 (0.11,2.59)	I^2=90%	VL
		acupuncture+western	2(140)	-1①	0	0	-1③	-1⑤	MD = 8.30	I^2=13%	VL

		medicine *vs.* western medicine							(5.51, 11.09)		
		acupuncture *vs.* sham acupuncture	1(160)	-1①	-1②	0	-1③	-1⑤	MD = 7.00 (4.67,9.33)	Not applicable	VL
	The effect of reducing the magnitude of DBP	acupuncture *vs.* western medicine	8(772)	-1①	-1②	0	-1③	0	MD = 0.52 (-1.43,2.46)	I^2=78%	VL
		acupuncture+western medicine *vs.* western medicine	2(140)	-1①	0	0	-1③	-1⑤	MD = 4.66 (2.88,6.45)	I^2=0%	VL
		acupuncture *vs.* sham acupuncture	1(160)	-1①	-1②	0	-1③	-1⑤	MD = 3.0 (1.29,4.71)	Not applicable	VL
Qian YX, 2013 [29]	The efficacy of improving 24h SBP	acupuncture *vs.* sham acupuncture	1	-1①	-1②	0	-1③	-1⑤	MD=-5.55 (-8.72,-1.28)	No information	VL
		acupuncture+traditional therapy(western medicine/lifestyle modification) *vs.* traditional therapy	2	-1①	-1②	0	-1③	-1⑤	MD=-7.51 (-10.37,-4.65)	No information	VL
	The efficacy of improving 24h DBP	acupuncture *vs.* sham acupuncture	1	-1①	-1②	0	-1③	-1⑤	No statistical significance	No information	VL
		acupuncture+traditional therapy(western medicine/lifestyle modification) *vs.* traditional therapy	2	-1①	-1②	0	-1③	-1⑤	MD=-2.27 (-4.32,-0.22)	No information	VL

	The efficacy of improving 12h SBP	acupuncture *vs.* sham acupuncture	1	-1①	-1②	0	-1③	-1⑤	MD=-5.00 (-8.56,-1.44)	No information	VL
		acupuncture+traditional therapy(western medicine/lifestyle modification) *vs.* traditional therapy	6	-1①	-1②	0	-1③	0	MD=-7.66 (-9.45,-5.86)	No information	VL
	The efficacy of improving 12h DBP	acupuncture *vs.* sham acupuncture	1	-1①	-1②	0	-1③	-1⑤	No statistical significance	No information	VL
		acupuncture+traditional therapy(western medicine/lifestyle modification) *vs.* traditional therapy	6	-1①	-1②	0	-1③	0	MD=-2.87 (-4.16,-1.57)	No information	VL
Guo W, 2013 [30]	The effective rate of lowering blood pressure	acupuncture+western medicine *vs.* western medicine	10(679)	-1①	0	0	-1③	0	OR=5.23 (3.24,8.44)	I^2=0%	L
	The efficacy of improving SBP		4(275)	-1①	0	0	-1③	0	MD=-8.35 (-10.89,-5.81)	I^2=0%	L
	The efficacy of improving DBP		4(275)	-1①	-1②	0	-1③	0	MD= -6.33 (-7.97,-4.69)	I^2=92%	VL
Zhang YJ,2014 [31]	The effective rate of lowering blood pressure	acupuncture *vs.* western medicine	7(612)	-1①	-1②	0	-1③	0	OR= 0. 95 (0.45,2.00)	I^2=55%	VL
		acupuncture+western medicine *vs.* western medicine	4(262)	-1①	0	0	-1③	0	OR=5.13 (2.60,10.11)	I^2= 0%	L

	The efficacy of improving SBP	acupuncture *vs.* western medicine	3(180)	-1①	0	0	-1③	-1⑤	WMD =- 3.26 (- 7.98,1.46)	I^2=0%	VL
		acupuncture+western medicine *vs.* western medicine	2(152)	-1①	0	0	-1③	-1⑤	WMD=-9.50 (-13.66,-5.34)	I^2=0%	VL
	The efficacy of improving DBP	acupuncture *vs.* western medicine	3(180)	-1①	0	0	-1③	-1⑤	WMD=-2.17 (-5.02,0.68)	I^2=0%	VL
		acupuncture+western medicine *vs.* western medicine	2(152)	-1①	0	0	-1③	-1⑤	WMD=- 0.16 (-2.52,2.19)	I^2=0%	VL
Zhang L,2017 [32]	The efficacy of improving SBP	acupuncture *vs.* western medicine	23(1705)	-1①	-1②	0	0	-1④	SMD=-0.66 (-1.03,-0.29)	I^2= 92%	VL
		acupuncture+western medicine *vs.* western medicine	11(1029)	-1①	0	0	0	-1④	SMD=-1.14 (-1.31,-0.96)	I^2=38%	L
	The efficacy of improving DBP	acupuncture *vs.* western medicine	23(1705)	-1①	-1②	0	0	-1④	SMD=-0.61 (-1.02,-0.21)	I^2=93%	VL
		acupuncture+western medicine *vs.* western medicine	11(1029)	-1①	-1②	0	0	-1④	SMD=-1.10 (-1.63,-0.58)	I^2=93%	VL
	The effective rate of lowering blood pressure	acupuncture *vs.* western medicine	28(2271)	-1①	-1②	0	0	-1④	RR=1.10 (1.03,1.17)	I^2=69%	VL
		acupuncture+western medicine *vs.* western medicine	14(1125)	-1①	0	0	0	-1④	RR=1.19 (1.13,1.25)	I^2=5%	L
	The effective	acupuncture *vs.* western	7(465)	-1①	0	0	0	-1④	RR=1.21	I^2=0%	L

	rate of improving symptoms	medicine							(1.11,1.31)		
		acupuncture+western medicine *vs.* western medicine	3(276)	-1①	0	0	0	-1④	RR=1.19 (1.09,1.31)	I^2=12%	L
	The effective rate of comprehensive treatment	acupuncture *vs.* western medicine	5(394)	-1①	-1②	0	0	-1④	RR=1.38 (1.14,1.66)	I^2=61%	VL
		acupuncture+western medicine *vs.* western medicine	2(184)	-1①	0	0	0	-1④⑤	RR=1.20 (1.07,1.33)	I^2=0%	L
Zhu T,2018 [33]	The effective rate of comprehensive treatment	acupuncture *vs.* western medicine/ acupuncture+western medicine *vs.* western medicine/ acupuncture+behavior therapy *vs.* western medicine	22(1758)	-1①	0	0	-1③	0	OR=2.49 (1.92,4.24)	I^2=47%	L
	The efficacy of improving SBP		13(908)	-1①	-1②	0	0	0	WMD=-4.50 (-6.45,-2.55)	I^2=86%	L
	The efficacy of improving DBP		13(908)	-1①	-1②	0	0	0	WMD=-3.14 (-4.61,-1.66)	I^2=86%	L
Han S,2019 [34]	The effective rate of comprehensive treatment	acupuncture+Tianma Gouteng Decoction *vs.* western medicine/Tianma Gouteng Decoction	6(694)	-1①	0	0	-1③	-1④	OR = 5.39 (2.97,9.80)	I^2=0%	VL
	The efficacy of improving SBP		3(358)	-1①	-1②	0	-1③	-1④	OR =-15.49 (-18.48,-12.50)	I^2=53%	VL
	The efficacy of improving DBP		3(358)	-1①	0	0	-1③	-1④	OR= -9.71 (- 11.84, -7.57)	I^2=50%	VL
Lee	The effect of	acupuncture *vs.* sham	3(358)	-1①	-1②	0	-1③	0	MD=-5	I^2=92%	VL

H,2009 [35]	reducing the magnitude of SBP	acupuncture							(-12,1)		
		acupuncture+medication *vs.* sham acupuncture+western medicine	2(170)	-1①	0	0	-1③	-1⑤	MD=-8 (-10,-5)	I^2=0%	VL
	The effect of reducing the magnitude of DBP	acupuncture *vs.* sham acupuncture	3(358)	-1①	-1②	0	-1③	0	MD=-3 (-6,0)	I^2=79%	VL
		acupuncture+medication *vs.* sham acupuncture+western medicine	2(170)	-1①	0	0	-1③	-1⑤	MD=-4 (-6,-2)	I^2=0%	VL
Li DZ, 2014 [36]	The efficacy of improving SBP	electroacupuncture/auricular acupuncture *vs.* sham acupuncture	2(216)	-1①	0	0	-1③	0	MD=1.33 (-2.50,5.16)	I^2 =44%	L
		electroacupuncture/auricular acupuncture+antihypertensive drugs *vs.* sham acupuncture	2(170)	-1①	0	0	-1③	-1⑤	MD=-8.58 (-10.13,-7.03)	I^2=17%	VL
	The efficacy of improving DBP	electroacupuncture/auricular acupuncture *vs.* sham acupuncture	2(216)	-1①	-1②	0	-1③	0	MD=-0.18 (-3.98,3.62)	I^2 = 63%	VL
		electroacupuncture/auricular acupuncture+antihypertensive drugs *vs.* sham	2(170)	-1①	0	0	0	-1⑤	MD=-4,54 (-5.08, -4.00)	I^2=0%	L

		acupuncture									
Zhao XF, 2015 [37]	The efficacy of improving SBP	acupuncture *vs.* western medicine	7(510)	-1①	-1②	0	-1③	0	MD=-0.56 (-3.02,1.89)	I^2=60%	VL
		acupuncture+western medicine *vs.* western medicine	3(170)	-1①	-1②	0	-1③	-1⑤	MD=-9.04 (-20.11,2.02)	I^2=94%	VL
		acupuncture+lifestyle modification *vs.* lifestyle modification	1(60)	-1①	-1②	0	-1③	-1⑤	MD=-10.53 (-27.52,6.46)	Not applicable	VL
	The efficacy of improving DBP	acupuncture *vs.* western medicine	7(510)	-1①	0	0	-1③	0	MD=-1.01 (-2.26,0.24)	I^2=23%	L
		acupuncture+western medicine *vs.* western medicine	3(170)	-1①	-1②	0	-1③	-1⑤	MD=-2.87 (-8.45,2.72)	I^2=86%	VL
		acupuncture+lifestyle modification *vs.* lifestyle modification	1(60)	-1①	-1②	0	-1③	-1⑤	MD=-7.52 (-15.06,0.02)	Not applicable	VL
	The effect of reducing the magnitude of SBP	acupuncture *vs.* sham acupuncture	2(216)	-1①	0	0	0	0	MD=0.30 (-0.27,0.88)	I^2=0%	M
		acupuncture+western medicine *vs.* sham acupuncture+western medicine	2(170)	-1①	0	0	-1③	-1⑤	MD=-7.47 (-10.43,-4.51)	I^2=0%	VL
	The effect of reducing the magnitude of	acupuncture *vs.* sham acupuncture	2(216)	-1①	0	0	-1③	0	MD=-1.40 (-2.37,-0.44)	I^2=8%	L
		acupuncture+western	2(170)	-1①	0	0	-1③	-1⑤	MD=-4.22	I^2=0%	VL

	DBP	medicine *vs.* sham acupuncture+western medicine							(-6.26,-2.18)		
Chen H,2018 [38]	The effective rate of lowering blood pressure	acupuncture *vs.* anti-hypertensive drugs	9(517)	-1①	-1②	0	0	-1④	RR=1.12 (0.98,1.28)	I^2=78%	VL
		acupuncture+lifestyle modifications *vs.* lifestyle modifications	2(187)	-1①	0	0	0	-1④⑤	RR=1.2 (1.05,1.36)	I^2=0%	L
		acupuncture+anti-hypertensive drugs *vs.* antihypertensive drugs	7(517)	-1①	0	0	0	-1④	RR=1.17 (1.08,1.27)	I^2=0%	L
		electro-acupuncture *vs.* antihypertensive drugs	2(99)	-1①	0	0	0	-1④⑤	RR=0.94 (0.76,1.16)	I^2=0%	L
	The efficacy of improving SBP	acupuncture *vs.* antihypertensive drugs	8(541)	-1①	0	0	-1③	-1④	MD=1.4 (-1.32,4.12)	I^2=57%	VL
		acupuncture *vs.* no treatment	1(30)	-1①	-1②	0	-1③	-1④⑤	MD=5.2 (-2.99,13.39)	Not applicable	VL
		acupuncture *vs.* sham acupuncture	3(106)	-1①	0	0	-1③	-1④⑤	MD=1.59 (-4.63,7.8)	I^2=65%	VL
		acupuncture+lifestyle modifications *vs.* lifestyle modifications	3(246)	-1①	-1②	0	-1③	-1④	MD=10.38 (6.72,14.04)	I^2=86%	VL

		acupuncture+antihypertensive drugs *vs.* antihypertensive drugs	5(365)	-1①	-1②	0	-1③	-1④	MD=9.8 (2.95,16.65)	I^2=94%	VL
		acupuncture+antihypertensive drugs *vs*. Sham acupuncture +antihypertensive drugs	2(170)	-1①	0	0	-1③	-1④⑤	MD=8.82 (5.1,12.54)	I^2=35%	VL
		electroacupuncture *vs.* antihypertensive drug	3(200)	-1①	-1②	0	-1③	-1④	MD=1.63 (-3.25,6.52)	I^2=57%	VL
		electroacupuncture+antihypertensive drugs *vs.* antihypertensive drugs	1(59)	-1①	-1②	0	-1③	-1④⑤	MD=9.12 (3.96,14.28)	Not applicable	VL
	The efficacy of improving DBP	acupuncture *vs.* antihypertensive drugs	8(541)	-1①	-1②	0	-1③	-1④	MD=2.04 (-0.59,4.67)	I^2=83%	VL
		acupuncture *vs.* no treatment	1(30)	-1①	-1②	0	-1③	-1④⑤	MD=6.1 (1.27,10.93)	Not applicable	VL
		acupuncture *vs.* sham acupuncture	3(106)	-1①	0	0	-1③	-1④⑤	MD=–0.01 (-2.59,2.57)	I^2=15%	VL
		acupuncture+lifestyle modifications *vs.* lifestyle modifications	3(246)	-1①	-1②	0	-1③	-1④	MD=5.74 (1.94, 9.54)	I^2=91%	VL
		acupuncture+antihypertensive drugs *vs.* antihypertensive drugs	5(365)	-1①	-1②	0	-1③	-1④	MD=7.82 (4.67,10.96)	I^2=79%	VL

		acupuncture+antihypertensive drugs *vs.* Sham acupuncture+antihypertensive drugs	2(170)	-1①	0	0	-1③	-1④⑤	MD=4.44 (1.7,7.19)	I^2=36%	VL
		electroacupuncture *vs.* antihypertensive drug	3(200)	-1①	0	0	-1③	-1④	MD=-1.98 (-4.85,0.62)	I^2=31%	VL
		electroacupuncture+antihypertensive drugs *vs.* antihypertensive drugs	1(59)	-1①	-1②	0	-1③	-1④⑤	MD=4.46 (-0.25,9.17)	Not applicable	VL
Zhang MX ,2022[39]	The efficacy of improving SBP	acupuncture/electroacupuncture/needle warming therapy *vs.* antihypertensive drugs	4(1176)	-1①	0	0	0	-1④	MD=3.62 (1.34,5.90)	I^2=56%	L
	The efficacy of improving DBP		4(1176)	-1①	0	0	0	-1④	MD=3.12 (1.03,5.20)	I^2=77%	L

Note: **VL: very low; L: low; M: moderate; H: high.①The included studies have a large bias in methodology such as randomization, allocation concealment, and blinding. ②The confidence interval overlaps less or the I^2 value of the combined results was larger. ③The sample size from the included studies does not meet the optimal sample size or the confidence interval was not narrow enough. ④The funnel chart is asymmetry. ⑤Fewer studies were included, and their results were all positive, which may result in a large publication bias;*The 95% confidence interval does not cross the invalid line.**