

Supplementary S3

Details of Recommendation

Recommendation number	Recommendation content	Recommendation level / evidence Level
1) Acupuncture		
Acupuncture alone treatment		
R1	Acupuncture alone treatment is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adult	A / High
	Clinical considerations EX-B2 and acupoints of Governor Vessel(GV) and Bladder Meridian(BL) at the lumbar region may be primarily considered, and acupoints of BL and Gallbladder Meridian (GB) at the hip and lower extremities may be considered additionally depending on the location of the radiation pain. The retention time of acupuncture or stimulation time of electro-acupuncture is generally appropriate for 20-30 minutes.	
Combination treatment		
R2	A combination of acupuncture with usual care is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adults	A / Moderate
	Clinical considerations A combination of acupuncture with Korean medical treatment such as moxibustion, herbal medicine, or chuna or Western medical treatment such as oral medication or injection may be considered to improve the effectiveness.	
Treatment method		

R3	Additional heat or electric stimulation on acupuncture is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adults	A / High
R4	Deep insertion acupuncture technique should be considered for improving overall symptoms of the lumbar herniated intervertebral disc in adults	B / Moderate
	Clinical considerations Deep insertion acupuncture technique is mainly applicable to EX-B2, and an acupuncture needle may be inserted to a depth of 45-90mm or bone-contact depth depending on the patient's physique for safety.	
2) Moxibustion		
Moxibustion alone treatment		
R5	Based on the expert group consensus, moxibustion alone treatment is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adult	GPP / Very low
Combination treatment		
R6	A combination of moxibustion with acupuncture or chuna is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adults	A / High
	Clinical considerations BL23, GB30, BL40, BL25 and ashi points can be considered when selecting acupoints for moxibustion.	
Treatment method		
R7	Moxibustion that elicits Deqi sensation may be considered for improving overall symptoms of	C / Low

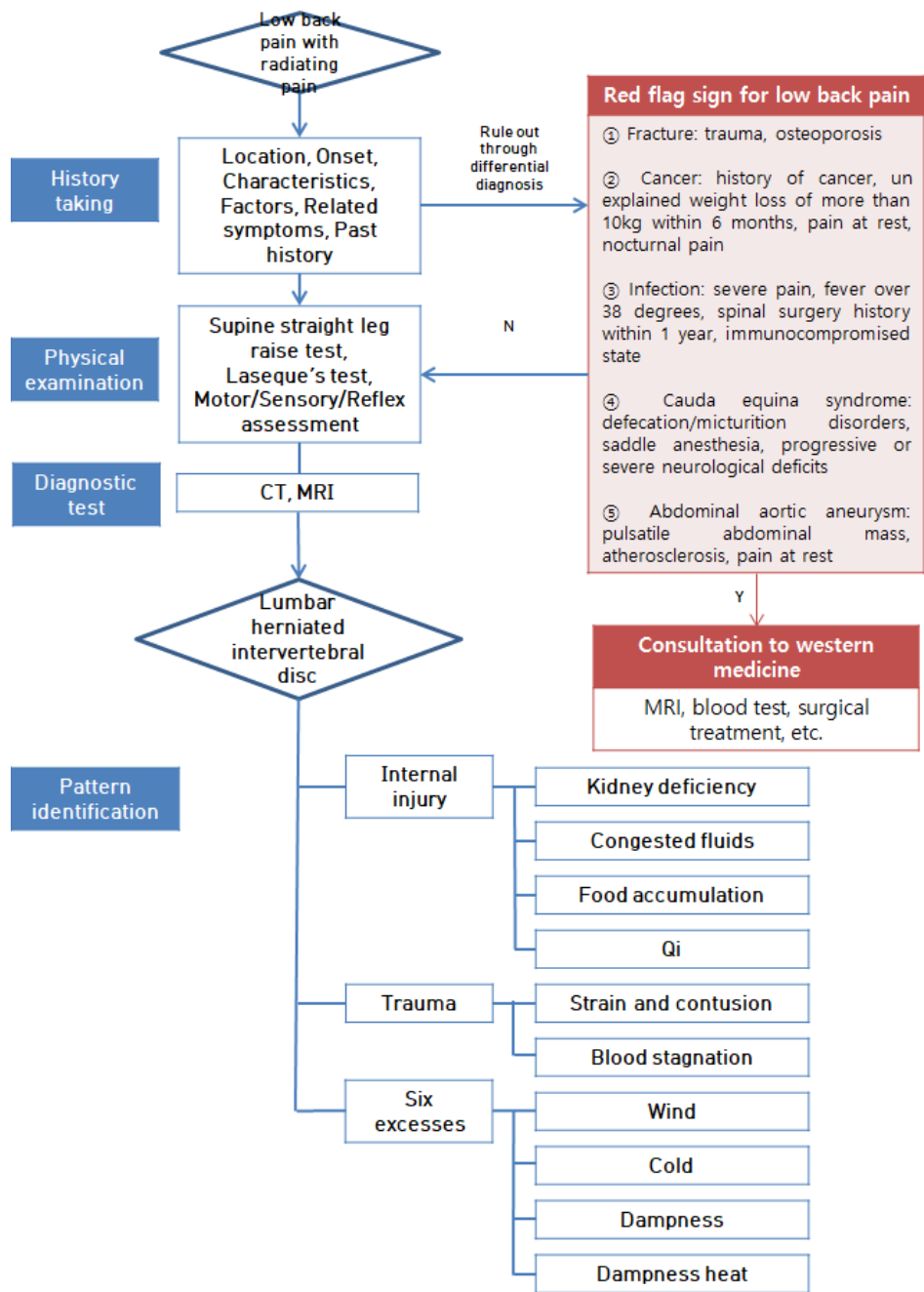
	the lumbar herniated intervertebral disc in adults	
3) Herbal medicine		
Herbal medicine alone treatment		
R8	Herbal medicine alone treatment should be considered for improving overall symptoms of the lumbar herniated intervertebral disc in adult	B / Moderate
	Clinical considerations Dokwhalgisaeng-tang which can be modified by pattern identification may be prescribed in herbal medicine alone treatment for the lumbar herniated intervertebral disc.	
Combination treatment		
R9	A combination of herbal medicine with usual care is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adults	A / High
	Clinical considerations A combination of herbal medicine with Korean medical treatment such as acupuncture, pharmacopuncture, or chuna, or western medical treatment such as oral medications or injection may be considered to improve the effectiveness. Dokwhalgisaeng-tang which can be modified by pattern identification may be prescribed in herbal medicine combination treatment for the lumbar herniated intervertebral disc.	
4) Pharmacopuncture		
Combination treatment		
R10	A combination of pharmacopuncture with usual care should be considered for improving overall	B / Moderate

	symptoms of the lumbar herniated intervertebral disc in adults	
	Clinical considerations A combination of pharmacopuncture with acupuncture, chuna or integrative Korean medical treatment may be considered to improve the effectiveness. Bee venom Pharmacopuncture may be considered when selecting pharmacopuncture for the lumbar herniated intervertebral disc, and the dose or concentration of bee venom should be gradually increased after confirming a patient’s adverse reaction. EX-B2, acupoints of Governor Vessel(GV), and ashi points may be considered for pharmacopuncture treatment.	
5) Chuna		
Chuna alone treatment		
R11	Chuna alone treatment is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adult	A / High
Combination treatment		
R12	A combination of chuna with usual care is recommended for improving overall symptoms of the lumbar herniated intervertebral disc in adults	A / Moderate
	Clinical considerations A combination of chuna with Korean medical treatment such as acupuncture, herbal medicine, or traction, or western medical treatment such as injection may be considered to improve the effectiveness.	
6) Thread-embedding acupuncture		
Thread-embedding acupuncture alone treatment		
R13	Thread-embedding acupuncture should be	B / Moderate

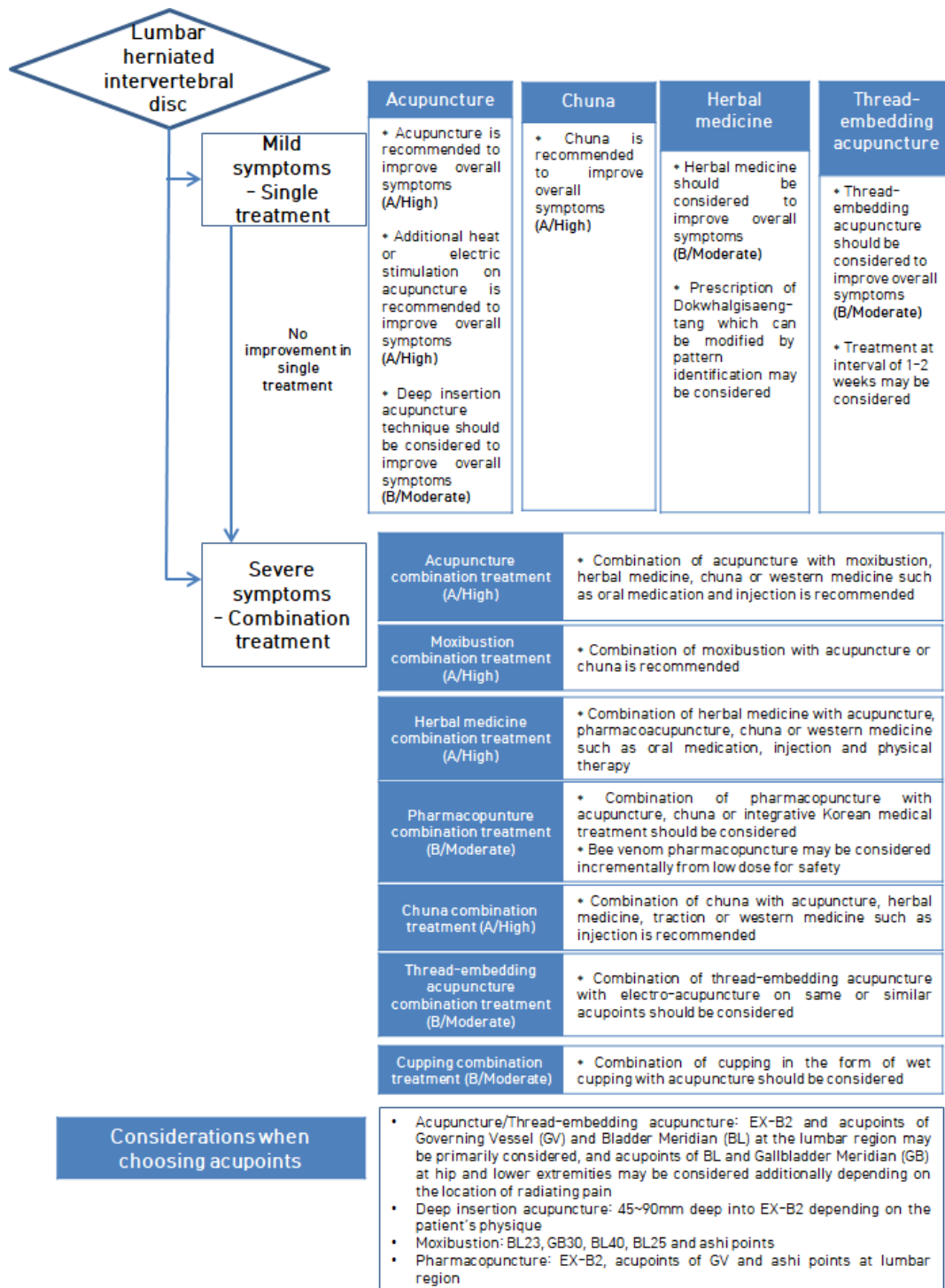
	considered for improving overall symptoms of the lumbar herniated intervertebral disc in adult	
	Clinical considerations EX-B2, acupoints of Governor Vessel (GV) and Bladder Meridian (BL), and ashi points at the lumbar region may be primarily considered, and acupoints of BL and Gallbladder Meridian (GB) at the hip and lower extremities may be considered additionally depending on the location of the radiation pain. When repeating thread-embedding acupuncture treatment, it may be considered at intervals of 1-2 weeks.	
Combination treatment		
R14	A combination of thread-embedding acupuncture with usual care should be considered for improving overall symptoms of the lumbar herniated intervertebral disc in adults	B / Moderate
	Clinical considerations A combination of thread-embedding acupuncture with electro-acupuncture on the same or similar acupoints may be considered to improve the effectiveness.	
7) Cupping treatment		
Combination treatment		
R15	A combination of cupping treatment with usual care should be considered for improving overall symptoms of the lumbar herniated intervertebral disc in adults	B / Moderate
	Clinical considerations Wet cupping technique may be considered for the treatment of the lumbar herniated intervertebral disc, and it may be combined with	

	acupuncture to improve the effectiveness.
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Diagnostic algorithm



Treatment algorithm



Details of Clinical Findings

Outcome measures	Numbar of patients		Effect		Comments
	Intervention group (n)	Comparison group (n)	Relative effect (95% CI, p value)	Number of total patients (Number of studies)	
Acupuncture					
CQ1. Total clinical effective rate (23, RCTs) [12-35]	Acupuncture (1,294)	UCT (1,149)	RR 1.18 (1.12,1.25, p<0.00001)	2,443 (23)	The higher score, the more effect
Pain (15, RCTs) [12-26]	Acupuncture (684)	UCT (605)	MD -1.86 (-1.91,-1.81, p<0.00001)	1,289 (15)	The lower score, the lower pain intensity
Function (JOA) (4, RCTs) [13,14,16,33]	Acupuncture (144)	UCT (133)	MD 4.48 (3.39, 5.03, p<0.00001)	277 (4)	The higher score, the more improvement
CQ2. Total clinical effective rate (13, RCTs)[20, 36-44]	Acupuncture + UCT (693)	UCT (632)	RR 1.21 (1.16, 1.28, p<0.00001)	1,326 (13)	The higher score, the more effect

Pain (5, RCTs)[36, 42-45]	Acupuncture + UCT (212)	UCT (212)	MD -1.03 (-1.16,-0.90, p<0.00001)	424 (5)	The lower score, the lower pain intensity
Function (ODI) (2, RCTs) [36, 43]	Acupuncture + UCT (90)	UCT (90)	MD -3.27 (-3.86, -2.68, p<0.00001)	180 (2)	The lower score, the more improvement
Function (JOA) (3, RCTs) [44,46,47]	Acupuncture + UCT (130)	UCT (100)	MD 4.00 (3.48, 4.52, p<0.00001)	200 (3)	The higher score, the more improvement
CQ3. Total clinical effective rate (7, RCTs) [22, 53-57]	Electric acupuncture or fire needling or warm needling (396)	Acupuncture (389)	RR 1.16 (1.09, 1.23, p<0.00001)	785 (7)	The higher score, the more effect
Pain (6, RCTs) [52-56]	Electric acupuncture or fire needling or warm needling (264)	Acupuncture (257)	MD -0.58 (-0.76,-0.39, p<0.00001)	521 (6)	The lower score, the lower pain intensity
Function (ODI) (2, RCTs) [52, 55]	Electric acupuncture or	Acupuncture (67)	MD -0.71 (-1.29,-0.13, p=0.02)	135 (2)	The lower score, the more

	fire needling or warm needling (68)				improvement
CQ4. Total clinical effective rate (7, RCTs) [59-65]	Deep-injection acupuncture (627)	Superficial- injection acupuncture (538)	RR 1.31 (1.23, 1.39, p<0.00001)	1,165 (7)	The higher score, the more effect
Pain (1, RCTs) [58]	Deep-injection acupuncture (10)	Superficial- injection acupuncture (9)	MD -1.66 (-3.97,0.65, p=0.16)	19 (1)	The lower score, the lower pain intensity
Moxibustion					
CQ5. Total clinical effective rate (1, RCTs) [66]	Moxibustion (60)	UCT (60)	RR 1.15 (0.97, 1.36, P=0.10)	120 (1)	The higher score, the more effect
CQ6. Total clinical effective rate (5, RCTs) [47, 57, 69- 71]	Moxibustion + acupuncture or Moxibustion + Chuna manual therapy (209)	Acupuncture or Chuna manual therapy (179)	RR 1.22 (1.12, 1.32, P=0.04)	388 (5)	The higher score, the more effect

Pain (1, RCTs) [69]	Moxibustion + acupuncture or Moxibustion + Chuna manual therapy (47)	Acupuncture or Chuna manual therapy (48)	MD -1.40 (-1.85,-0.95, p<0.00001)	95 (1)	The lower score, the lower pain intensity
Function (JOA) (4, RCTs) [47, 69-71]	Moxibustion + acupuncture or Moxibustion + Chuna manual therapy (170)	Acupuncture or Chuna manual therapy (140)	MD 4.10 (3.42, 4.77, p<0.00001)	310 (4)	The higher score, the more improvement
CQ7. Total clinical effective rate (2, RCTs) [74,75]	Moxibustion with deqi sensation (120)	Moxibustion without deqi sensation (120)	RR 1.19 (1.06, 1.33, P=0.004)	240 (2)	The higher score, the more effect
Function (m-JOA) (2, RCTs) [72,73]	Moxibustion with deqi sensation (94)	Moxibustion without deqi sensation (94)	MD -2.66 (-4.02,- 1.30, p<0.00001)	188 (2))	The lower score, the more improvement
Herbal medicine					
CQ8.	Herbal medicine	UCT	RR 1.19	532	The higher score,

Total clinical effective rate (5, RCTs) [76, 79-82]	(270)	(262)	(1.11, 1.28, p<0.00001)	(5)	the more effect
Pain (3, RCTs) [76-78]	Herbal medicine (127)y	UCT (125)	MD -0.55 (-0.70,-0.40, p<0.00001)	252 (3)	The lower score, the lower pain intensity
Function (ODI) (3, RCTs) [76-78]	Herbal medicine (127)	UCT (125)	MD -3.86 (-4.71,-3.02, p<0.00001)	252 (3)	The lower score, the more improvement
Function (JOA) (1, RCTs) [79]	Herbal medicine (38)	UCT (38)	MD 1.46 (0.95,1.97, p<0.00001)	76 (1)	The higher score, the more improvement
CQ9. Total clinical effective rate (21, RCTs) [40,41,83,85-100,102-103]	Herbal medicine + UCT (1369)	UCT (1290)	RR 1.32 (1.26, 1.37, p<0.00001)	2,659 (21)	The higher score, the more effect
Pain (10, RCTs) [83,84,94,97-103]	Herbal medicine + UCT (485)	UCT (483)	MD -1.51 (-1.57,-1.46, p<0.00001)	968 (10)	The lower score, the lower pain intensity
Function (ODI) (1, RCTs) [83]	Herbal medicine + UCT (40)	UCT (40)	MD -5.25 (-8.33,-2.17, p=0.0008)	80 (1)	The lower score, the more improvement

Function (JOA) RCTs)[85,97,98,101]	(4,	Herbal medicine + UCT (219)	UCT (217)	MD 5.89 (5.31,6.46, p<0.00001)	436 (4)	The higher score, the more improvement
Pharmacopuncture						
CQ10. Total clinical effective rate (5, RCTs)[97, 105, 107, 109]		Pharmacopuncture + UCT (142)	UCT (145)	RR 1.19 (1.07, 1.32, P=0.001)	287 (5)	The higher score, the more effect
Pain (8, RCTs)[97, 104-109]		Pharmacopuncture + UCT (191)	UCT (191)	MD -1.65 (-1.70,-1.61, p<0.00001)	382 (8)	The lower score, the lower pain intensity
Function (ODI) RCTs)[110]	(1,	Pharmacopuncture + UCT (16)	UCT (13)	MD -8.39 (-10.50,-6.28,p<0.00001)	29 (1)	The lower score, the more improvement
Function (ODIc) RCTs) [104, 106, 109]	(3,	Pharmacopuncture + UCT (44)	UCT (46)	MD 6.22 (3.10,9.33, p<0.0001)	90 (3)	The higher score, the more improvement

Function (JOA) (1, RCTs) [97]	Pharmacopuncture + UCT (62)	UCT (60)	MD 9.00 (7.89,10.11, p<0.00001)	122 (1)	The higher score, the more improvement
Chuna manual therapy					
CQ11. Total clinical effective rate (10, RCTs) [111-120]	Chuna therapy (639)	manual UCT (693)	RR 1.17 (1.12, 1.23, p<0.00001)	1,332 (10)	The higher score, the more effect
Pain (5, RCTs) [111-115]	Chuna therapy (389)	manual UCT (374)	MD -1.09 (-1.32,-0.86, p<0.00001)	763 (5)	The lower score, the lower pain intensity
Function (ODI) (1, RCTs) [113]	Chuna therapy (60)	manual UCT (60)	MD -9.87 (-15.68,-4.06, p=0.0009)	120 (1)	The lower score, the more improvement
Function (JOA) (1, RCTs) [116]	Chuna therapy (36)	manual UCT (30)	MD 4.85 (3.87,5.83, p<0.00001)	66 (1)	The higher score, the more improvement
CQ12. Total clinical effective rate (29, RCTs)[36, 39, 89, 99, 121, 124-147]	Chuna therapy + UCT (1970)	manual UCT (1785)	RR 1.25 (1.22, 1.29, p<0.00001)	3,755 (29)	The higher score, the more effect

Pain (8, RCTs) [36, 99, 121-126]	Chuna therapy + UCT (382)	manual UCT (380)	MD -1.08 (-1.21,-0.95, p<0.00001)	762 (8)	The lower score, the lower pain intensity
Function (ODI) (2, RCTs) [36, 124]	Chuna therapy + UCT (103)	manual UCT (103)	MD -2.93 (-3.38,-2.49, p<0.00001)	206 (2)	The lower score, the more improvement
Function (JOA) (4, RCTs) [46, 124, 127, 128]	Chuna therapy + UCT (206)	manual UCT (216)	MD 4.86 (4.19,5.53, p<0.00001)	422 (4)	The higher score, the more improvement
Thread-embedding acupuncture					
CQ13. Total clinical effective rate (12, RCTs) [148-159]	Thread-embedding acupuncture (695)	UCT (659)	RR 1.14 (1.10, 1.19, p<0.00001)	1,354 (12)	The higher score, the more effect
Pain (4, RCTs) [148-151]	Thread-embedding acupuncture (110)	UCT (110)	MD -0.40 (-0.54,-0.26, p<0.00001)	220 (4)	The lower score, the lower pain intensity
Function (ODI) (1, RCTs) [151]	Thread-embedding acupuncture (30)	UCT (30)	MD -1.30 (-2.42,-0.18, p=0.02)	60 (1)	The lower score, the more improvement

Function (JOA) (1, RCTs)[148]	Thread-embedding acupuncture (30)	UCT (30)	MD 2.03 (0.30,3.76, p=0.02)	60 (1)	The higher score, the more improvement
CQ14. Total clinical effective rate (6, RCTs) [160, 162-166]	Thread-embedding acupuncture + aUCT (470)	UCT (420)	RR 1.15 (1.09, 1.21, p<0.00001)	890 (6)	The higher score, the more effect
Pain (2, RCTs))[160, 161]	Thread-embedding acupuncture UCT (65)	UCT + (65)	MD -1.75 (-2.16,-1.33, p<0.00001)	130 (2)	The lower score, the lower pain intensity
Function (ODI) (2, RCTs) [160, 161]	Thread-embedding acupuncture UCT (65)	UCT + (65)	MD -12.94 (-17.25,-8.59,p<0.00001)	130 (2)	The lower score, the more improvement
Function (JOA) (1, RCTs) [160]	Thread-embedding acupuncture UCT (30)	UCT + (30)	MD 2.37 (0.78,3.96, p=0.004)	60 (1)	The higher score, the more improvement

Cupping					
CQ15.	Cupping + UCT	UCT	RR 1.43	348	The higher score,
Total clinical effective rate (5, RCTs) [167-171]	(175)	(173)	(1.27, 1.62, p<0.00001)	(5)	the more effect
Pain (1, RCTs)[167]	Cupping + UCT	UCT	MD -1.08	60	The lower score,
	(30)	(30)	(-2.24,-0.08, p=0.07)	(1)	the lower pain intensity
UCT, Usual conventional treatment; MD, mean difference; RR, risk ratio;					