

**Supplementary Table 1.** Search strategy of target databases

Search strategy for PubMed

Acronym	No.	Query	Filters	Results
P+I+C+S	10	(((("Spinal Stenosis"[Mesh]) OR (((Spinal Stenosis[Title/Abstract]) OR (Spinal Stenoses[Title/Abstract])) OR (lumbar stenosis[Title/Abstract])) OR (lumbar stenoses[Title/Abstract]))) AND (((((((biportal endoscopic spinal surgery[Title/Abstract]) OR (unilateral biportal endoscopic technique[Title/Abstract])) OR (biportal endoscopic[Title/Abstract])) OR (unilateral biportal endoscopy[Title/Abstract])) OR (two portal endoscopic spinal surgery[Title/Abstract])) OR (full-endoscopic[Title/Abstract])) OR (spine endoscopic[Title/Abstract])) OR (percutaneous transforaminal endoscopic decompression[Title/Abstract])) OR (TESSYS[Title/Abstract])) AND (((microscopic decompression surgery[Title/Abstract]) OR (micro endoscopic spine surgery[Title/Abstract])) OR (microscopic endoscopic[Title/Abstract])) OR (microscopic[Title/Abstract])) AND (((("Randomized Controlled Trial" [Publication Type]) OR "Randomized Controlled Trials as Topic" [Mesh]) OR "Random Allocation" [Mesh]) OR "Placebos" [Mesh]) OR ((random*) OR (placebo*)) AND (humans[Filter]))	Humans	5
S	9	(((("Randomized Controlled Trial" [Publication Type]) OR "Randomized Controlled Trials as Topic" [Mesh]) OR "Random Allocation" [Mesh]) OR "Placebos" [Mesh]) OR ((random*) OR (placebo*))	Humans	1,191,528
	8	(((("Randomized Controlled Trial" [Publication Type]) OR "Randomized Controlled Trials as Topic" [Mesh]) OR "Random Allocation" [Mesh]) OR "Placebos" [Mesh]) OR ((random*) OR (placebo*))		1,616,837
	7	(random*) OR (placebo*)		1,612,252
	6	(((("Randomized Controlled Trial" [Publication Type]) OR "Randomized Controlled Trials as Topic" [Mesh]) OR "Random Allocation" [Mesh]) OR "Placebos" [Mesh])		820,044
C	5	(((microscopic decompression surgery[Title/Abstract]) OR (micro endoscopic spine surgery[Title/Abstract])) OR (microscopic endoscopic[Title/Abstract])) OR (microscopic[Title/Abstract])		180,620
I	4	(((((((biportal endoscopic spinal surgery[Title/Abstract]) OR (unilateral biportal endoscopic technique[Title/Abstract])) OR (biportal endoscopic[Title/Abstract])) OR (unilateral biportal endoscopy[Title/Abstract])) OR (two portal endoscopic spinal surgery[Title/Abstract])) OR (full-endoscopic[Title/Abstract])) OR (spine endoscopic[Title/Abstract])) OR (percutaneous transforaminal endoscopic decompression[Title/Abstract])) OR (TESSYS[Title/Abstract])		609
P	3	("Spinal Stenosis" [Mesh]) OR (((Spinal Stenosis[Title/Abstract]) OR (Spinal Stenoses[Title/Abstract])) OR (lumbar stenosis[Title/Abstract])) OR (lumbar stenoses[Title/Abstract])		9,552
	2	(((Spinal Stenosis[Title/Abstract]) OR (Spinal Stenoses[Title/Abstract])) OR (lumbar stenosis[Title/Abstract])) OR (lumbar stenoses[Title/Abstract])		6,516
	1	"Spinal Stenosis" [Mesh]		6,787

Search strategy for Embase

Acronym	No.	Query	Results
P+I+C+S	9	#3 AND #4 AND #5 AND #8	11
S	8	#6 OR #7	2,219,989
	7	'randomized controlled trial'/exp OR 'randomized controlled trial (topic)'/exp OR 'randomization'/exp OR 'placebo'/exp	1,222,454
	6	random*:ti, ab, kw OR placebo*:ti, ab, kw	1,885,528
	5	'microscopic decompression surgery': ti, ab, kw OR 'micro endoscopic spine surgery': ti, ab, kw OR 'microscopic endoscopic': ti, ab, kw OR microscopic:ti,ab,kw	212,858
I	4	'biportal endoscopic spinal surgery': ti, ab, kw OR 'unilateral biportal endoscopic technique': ti, ab, kw OR 'biportal endoscopic': ti, ab, kw OR 'unilateral biportal endoscopy': ti, ab, kw OR 'two portal endoscopic spinal surgery': ti, ab, kw OR full-endoscopic: ti, ab, kw OR 'spine endoscopic': ti, ab, kw OR 'percutaneous transforaminal endoscopic decompression': ti, ab, kw OR tessys: ti, ab, kw	7,150
P	3	#1 OR #2	16,244
	2	'vertebral canal stenosis'/exp	14,472
	1	'spinal stenosis':ti,ab,kw OR 'spinal stenoses':ti,ab,kw OR 'lumbar stenosis':ti,ab,kw OR 'lumbar stenoses':ti,ab,kw	8,914

(Continued)

**Supplementary Table 1.** Search strategy of target databases (Continued)  
Search strategy for CENTRAL (Cochrane Central Register of Controlled Trials)

Acronym	ID	Search	Hits
P	1	(Spinal Stenosis):ti,ab,kw OR (Spinal Stenoses):ti,ab,kw OR (lumbar stenosis):ti,ab,kw OR (lumbar stenoses):ti,ab,kw	1,532
	2	MeSH descriptor: [Spinal Stenosis] explode all trees	450
	3	#1 or #2	1,532
I	4	(biportal endoscopic spinal surgery):ti,ab,kw OR (unilateral biportal endoscopic technique):ti,ab,kw OR (biportal endoscopic):ti,ab,kw OR (unilateral biportal endoscopy):ti,ab,kw OR (two portal endoscopic spinal surgery):ti,ab,kw	15
	5	(full-endoscopic):ti,ab,kw OR (spine endoscopic):ti,ab,kw OR (percutaneous transforaminal endoscopic decompression):ti,ab,kw OR (TESSYS):ti,ab,kw	131
	6	#4 or #5	133
C	7	(microscopic decompression surgery):ti,ab,kw OR (micro endoscopic spine surgery):ti,ab,kw OR (microscopic endoscopic):ti,ab,kw OR (microscopic):ti,ab,kw	2,538
S	8	(random*):ti,ab,kw OR (placebo*):ti,ab,kw	1,238,699
	9	MeSH descriptor: [Randomized Controlled Trial] explode all trees	119
	10	MeSH descriptor: [Random Allocation] explode all trees	20,664
	11	MeSH descriptor: [Placebos] explode all trees	24,587
	12	#8 or #9 or #10 or #11	1,238,699
P+I+C+S	13	#3 and #6 and #7 and #12	9