Journal of Orthopaedics and Physiotherapy
Volume 4 | Issue 2
ISSN: 2456-5504
Review Article
Open Access

Supplementary materials

Supplementary material 1: Quality assessment of the included studies.

Study	Selection	Comparability	Outcome	Scores
2002 Tani	3	2	3	8
2007 Iwasaki	3	1	3	7
2007 Masaki	3	0	3	6
2011 Chen	4	2	3	9
2012 Chen	3	1	3	7
2012 Sakai	4	1	2	7
2013 Liu	4	1	3	8
2014 Fujimori	4	2	3	9
2015 Kim	4	1	2	7
2015 Yuan	4	2	2	8
2016 Koda	3	1	3	7
2016 Yoshii	3	2	3	8
2017 Huo	4	1	3	8
2017 Liu	4	1	3	8
2017 Yoo	4	1	3	8
2018 Yang	4	2	2	8
2019 Ha	4	1	3	8
2019 Lee	3	1	3	7
2019 Sun	4	2	3	9
2019 Sunk	4	2	3	9
2019 Xu	4	1	3	8
2019 Yang	4	2	2	8
2020 Chen	4	1	2	7

Supplementary material 2: Results of pairwise meta-analysis.

Treatment1	Treatment2	SMD/RR	95% CI	Number of Studies
IR of JOA				
ACAF	ADF	0.803	0.443-1.163	2
ACAF	LAMP	0.694	0.371-1.017	2
ACAF	LC	4.78	3.511-5.245	1
ADF	LAMP	0.839	0.682-0.997	11
ADF	LC	1.787	0.042-3.521	4
LAMP	LC	-0.182	-1.042-0.678	7
Postoperative Complications				
ACAF	ADF	1.222	1.076-1.389	2
ACAF	LAMP	0.969	0.770-1.221	1
ACAF	LC	1.067	0.918-1.241	1
ADF	LAMP	0.92	0.838-1.010	10
ADF	LC	0.876	0.662-1.160	4
LAMP	LC	1.076	0.991-1.168	7
Cobb's Angle				
ACAF	ADF	2.234	1.585-2.883	1
ACAF	LAMP	0.888	0.419-1.356	1
ACAF	LC	4.378	3.511-5.245	1
ADF	LAMP	0.709	0.503-0.916	5
ADF	LC	0.075	-0.953-1.104	2
LAMP	LC	-0.354	-1.198-0.490	4

Supplementary material 3: Inconsistency Factors.

	Cycle	Median (95% CrI)
IR of JOA	ACAF, ADF, LAMP, LC	-3.30 (-33.60, 13.52)
	ACAF, ADF, LAMP	-8.24 (-34.31, 6.43)
	ADF, LAMP, LC	-2.03 (-18.64, 10.05)
Postoperative Complication	ACAF, ADF, LAMP, LC	0.07 (-1.91, 2.59)
	ACAF, ADF, LAMP	0.13 (-1.64, 2.60)
	ADF, LAMP, LC	0.13 (-1.18, 1.85)
Cobb's Angle	ACAF, ADF, LAMP, LC	-1.55 (-13.92, 5.07)
	ACAF, ADF, LAMP	-0.10 (-9.46, 8.12)
	ADF, LAMP, LC	-1.10 (-9.51, 4.47)

Supplementary material 4: Variance Calculation.

		Parameter	Median (95% CrI)
IR of JOA	Consistency Model		
		Random Effects Standard Deviation	11.96 (8.17, 18.29)
	Inconsistency Model	Random Effects Standard Deviation	11.81 (7.92, 18.25)
		Inconsistency Standard Deviation	12.61 (0.77, 48.50)
Postoperative Complication	Consistency Model		
		Random Effects Standard Deviation	1.25 (0.77, 2.02)
	Inconsistency Model	Random Effects Standard Deviation	1.29 (0.80, 2.14)
		Inconsistency Standard Deviation	0.92 (0.07, 3.91)
Cobb's Angle	Consistency Model		
		Random Effects Standard Deviation	4.30 (2.46, 8.20)
	Inconsistency Model	Random Effects Standard Deviation	4.40 (2.45, 8.64)
		Inconsistency Standard Deviation	4.32 (0.30, 14.23)

Supplementary material 5: Node-splitting analysis of inconsistency.

	Name	Direct Effect	Indirect Effect	Overall	P-Value
IR of JOA	ACAF, ADF	-10.57 (-27.72, 7.46)	8.77 (-6.99, 25.27)	-0.02 (-12.19, 13.03)	0.1
	ACAF, LAMP	-9.01 (-26.44, 8.58)	-25.62 (-41.86, -10.51)	-18.25 (-30.62, -5.82)	0.14
	ACAF, LC	-14.17 (-39.58, 11.87)	-16.51 (-32.47, -0.24)	-15.85 (-29.21, -2.49)	0.86
	ADF, LAMP	-21.42 (-30.03, -13.45)	-9.24 (-23.08, 4.56)	-18.31 (-26.61, -10.66)	0.11
	ADF, LC	-15.51 (-29.32, -2.76)	-18.41 (-32.56, -4.67)	-15.88 (-26.02, -6.14)	0.75
	LAMP, LC	2.21 (-8.81, 13.68)	9.17 (-13.24, 33.36)	2.41 (-6.32, 11.47)	0.56
Postoperative complications	ACAF, ADF	2.03 (0.21, 4.04)	1.21 (-1.03, 3.66)	1.71 (0.34, 3.19)	0.57
	ACAF, LAMP	-0.15 (-3.10, 2.74)	0.74 (-1.12, 2.59)	0.47 (-1.05, 1.95)	0.58
	ACAF, LC	0.79 (-2.41, 4.03)	0.96 (-0.96, 2.94)	0.91 (-0.68, 2.48)	0.92
	ADF, LAMP	-1.04 (-2.11, -0.08)	-1.89 (-3.80, -0.10)	-1.26 (-2.21, -0.40)	0.39
	ADF, LC	-0.99 (-2.64, 0.53)	-0.50 (-2.32, 1.11)	-0.80 (-1.97, 0.25)	0.65
	LAMP, LC	0.55 (-0.52, 1.62)	-0.27 (-2.46, 2.00)	0.45 (-0.54, 1.44)	0.49
Cobb's Angle	ACAF, ADF	-13.03 (-23.57, -2.44)	-8.15 (-16.72, 0.51)	-9.95 (-16.41, -3.60)	0.42
	ACAF, LAMP	-15.69 (-26.47, -4.85)	-14.69 (-23.38, -6.18)	-14.93 (-21.42, -8.74)	0.88
	ACAF, LC	-9.22 (-19.16, 0.57)	-14.84 (-23.81, -6.00)	-12.22 (-18.76, -5.90)	0.35
	ADF, LAMP	-5.92 (-10.74, -1.29)	-1.30 (-9.00, 7.04)	-4.95 (-9.28, -0.70)	0.28
	ADF, LC	-0.54 (-8.30, 7.61)	-3.36 (-10.61, 3.52)	-2.25 (-7.33, 2.72)	0.56
	LAMP, LC	1.61 (-3.82, 7.01)	4.33 (-4.64, 13.42)	2.70 (-1.94, 7.23)	0.55

Supplementary material 6: Results of network meta-analysis and rank probability for IR of JOA of the high occupied rate (≥50%).

ACAF	1.69 (-17.57, 21.59)	-13.92 (-34.15, 7.06)	-20.51 (-40.98, -1.98)
-1.69 (-21.59, 17.57)	ADF	-15.48 (-32.51, 0.99)	-22.36 (-35.40, -11.31)
13.92 (-7.06, 34.15)	15.48 (-0.99, 32.51)	LC	-6.89 (-24.45, 9.41)
20.51 (1.98, 40.98)	22.36 (11.31, 35.40)	6.89 (-9.41, 24.45)	LMAP

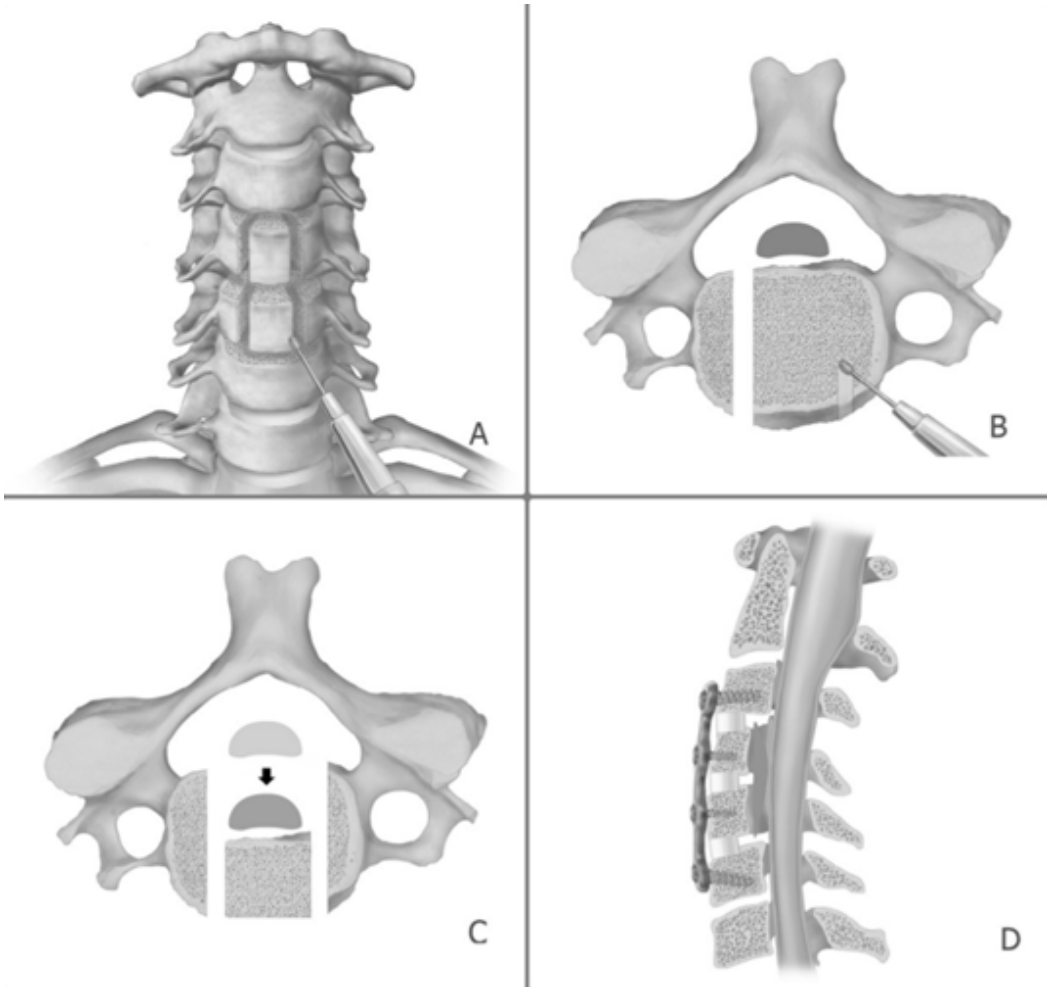
Treatment	Rank 1	Rank 2	Rank 3	Rank 4
ACAF	0.42	0.5	0.07	0.01
ADF	0.57	0.41	0.02	0
LC	0.01	0.08	0.73	0.18
LMAP	0	0.01	0.18	0.81

Supplementary material 7: Results of network meta-analysis and rank probability for IR of JOA of multilevel.

ACAF	-5.04 (-25.08, 14.73)	-8.83 (-25.18, 7.73)
5.04 (-14.73, 25.08)	LC	-3.78 (-14.23, 7.31)
8.83 (-7.73, 25.18)	3.78 (-7.31, 14.23)	LMAP

Treatment	Rank 1	Rank 2	Rank 3
ACAF	0.7	0.18	0.12
LC	0.27	0.53	0.2
LMAP	0.03	0.28	0.68

Supplementary material 8: The illustrations of the surgical technique



(A) Two longitudinal gutters are made by a high-speed burr at the base of the uncinate process. (B) Axial image: The vertebral body is cut to make a box-shaped and freely mobile segment. (C) Anterior translating of the vertebral body with ossification of the posterior longitudinal ligament mass with gentle force. (D) Arthrodesis using interbody cages with anterior cervical plates

1. Lee DH, Cho JH, Lee CS, Hwang CJ, Choi SH, Hong CG (2018) A novel anterior decompression technique (vertebral body sliding osteotomy) for ossification of posterior longitudinal ligament of the cervical spine. The spine journal : official journal of the North American Spine Society 18 (6):1099-1105. doi:10.1016/j.spinee.2018.02.022