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SUPPLEMENTAL DIGITAL CONTENT #1

Appendix 1 [Document] Search strings.

Search strings

MEDLINE / CENTRAL

("Cervical Vertebrae"[Mesh] OR cervical[tiab])

AND

("Discectomy"[Mesh] OR "Foraminotomy"[Mesh] OR discectom*[tiab] OR discectom*[tiab] OR foraminotom*[tiab] OR frykholm[tiab] OR cloward[tiab] OR (smith*[tiab] AND robinson*[tiab]) OR decompression*[ti] OR fusion*[tiab] OR disc replacement*[tiab] OR disk replacement*[tiab] OR disc arthroplast*[tiab] OR disk arthroplast*[tiab])

AND

("Randomized Controlled Trial" [Publication Type] OR "Controlled Clinical Trial" [Publication Type] OR randomized[tiab] OR randomised[tiab] OR placebo[tiab] OR "Clinical Trials as Topic"[Mesh:NoExp] OR randomly[tiab] OR trial[ti])

NOT ("Animals"[Mesh] NOT "Humans"[Mesh])

EMBASE

(cervical:ab,ti OR 'cervical spine'/exp)

AND

('spinal cord surgery'/exp OR 'spine surgery'/exp OR (discectom* OR discectom* OR foraminotom* OR frykholm OR cloward OR (smith* AND robinson*) OR fusion* OR 'disc replacement*' OR 'disk replacement*' OR 'disc arthroplast*' OR 'disk arthroplast*'):ab,ti OR decompression*:ti)

AND

('controlled clinical trial'/exp OR (randomi* OR randomly):ab,ti OR trial:ti)

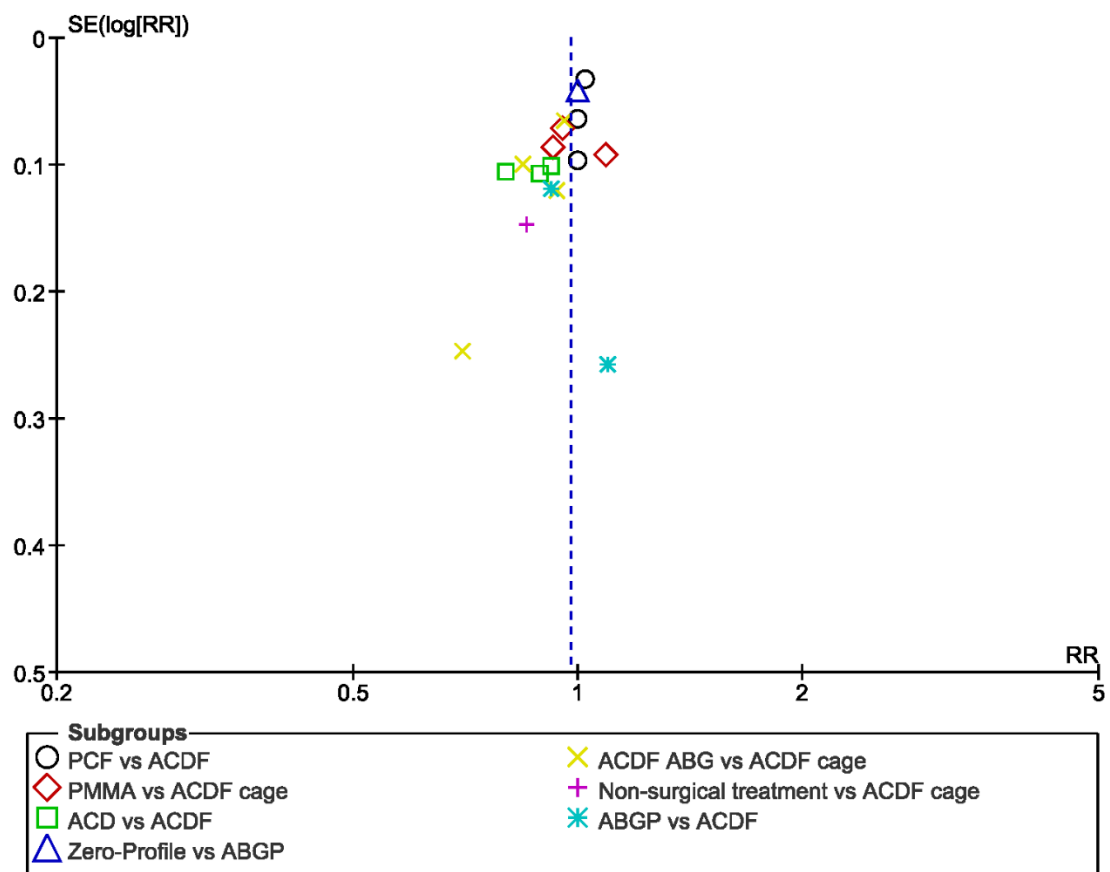
NOT

('conference abstract'/it OR (('animal'/exp OR 'nonhuman'/exp) NOT 'human'/exp))

Appendix 2 [Figure] Risk of bias assessment.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
Bartlacher ³¹	?	?	+	?	+	+
Donk ⁴¹	+	+	+	+	+	+
Ebrahim ²⁹	?	?	?	+	?	+
Engquist ³⁹	+	+	?	+	+	+
Fernandez ³⁷	+	+	+	+	+	+
Hauerberg ³³	+	+	?	?	+	+
Li ⁴⁴	+	+	+	+	+	+
Lind ³⁵	?	?	+	+	+	+
Löfgren ³⁶	?	?	+	+	+	+
Nabhan ⁴⁸	?	?	?	?	+	+
Nemoto ³⁴	?	?	?	+	+	+
Oktenoglu ⁴⁶	+	+	+	+	+	+
Orief ³²	?	?	+	?	+	+
Persson ⁴⁷	?	?	?	?	+	+
Ruetten ³⁰	+	+	+	+	+	+
Schröder ⁴⁰	+	+	?	+	+	+
Sundseth ⁴³	+	+	+	+	+	+
Vleggeert ⁴⁵	+	+	+	+	+	+
Wirth ²⁸	?	?	?	?	+	+
Xie ⁴²	+	+	+	?	+	+
Zoëga ³⁸	+	+	+	?	?	+

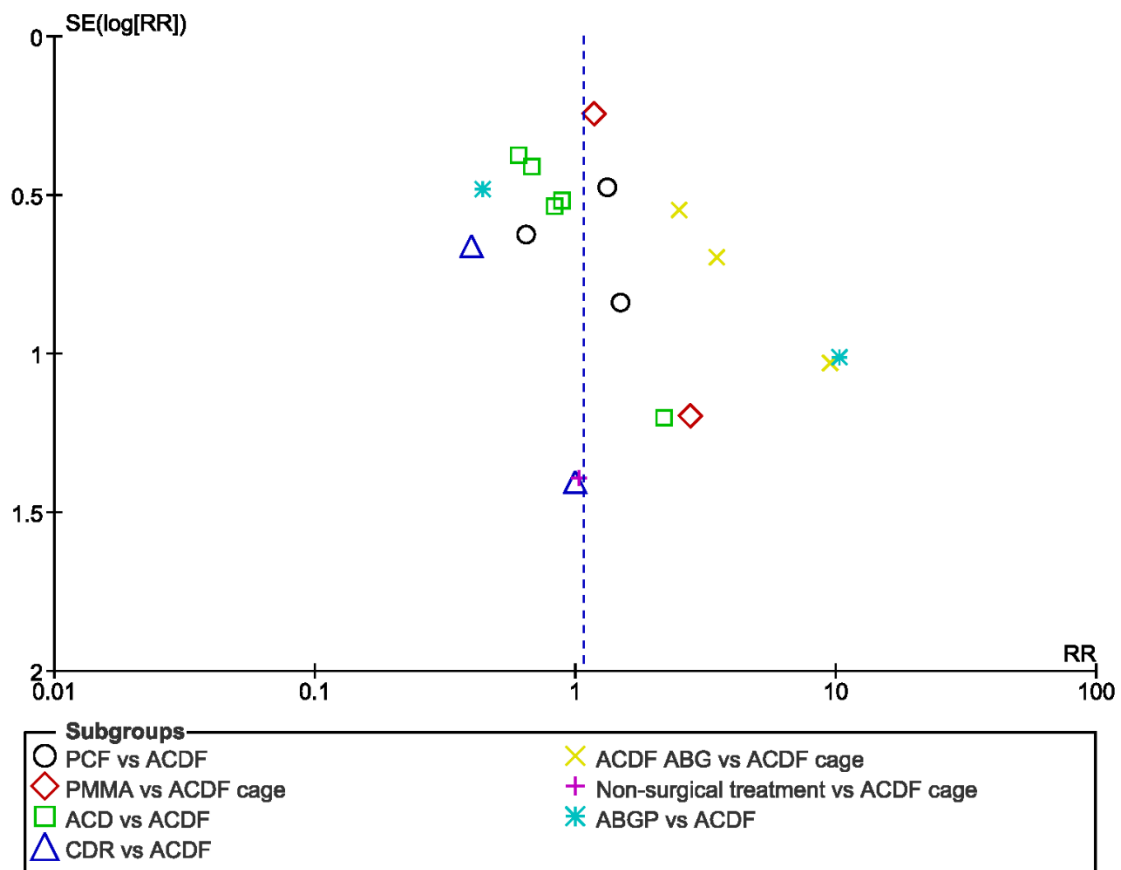
Appendix 3 [Figure] Funnel plot success rates.



Success rates

SE = standard error; RR = risk ratio; PCF= Posterior cervical foraminotomy; ACDF= Anterior cervical discectomy with fusion; PMMA = ACDF with polymethylmethacrylate as an intervertebral spacer; ACD = anterior cervical discectomy without intervertebral spacer; Zero-P = ACDF with a zero-profile cage as intervertebral spacer; ACDFP = ACDF with additional plating; ABG = ACDF with autologous bone graft.

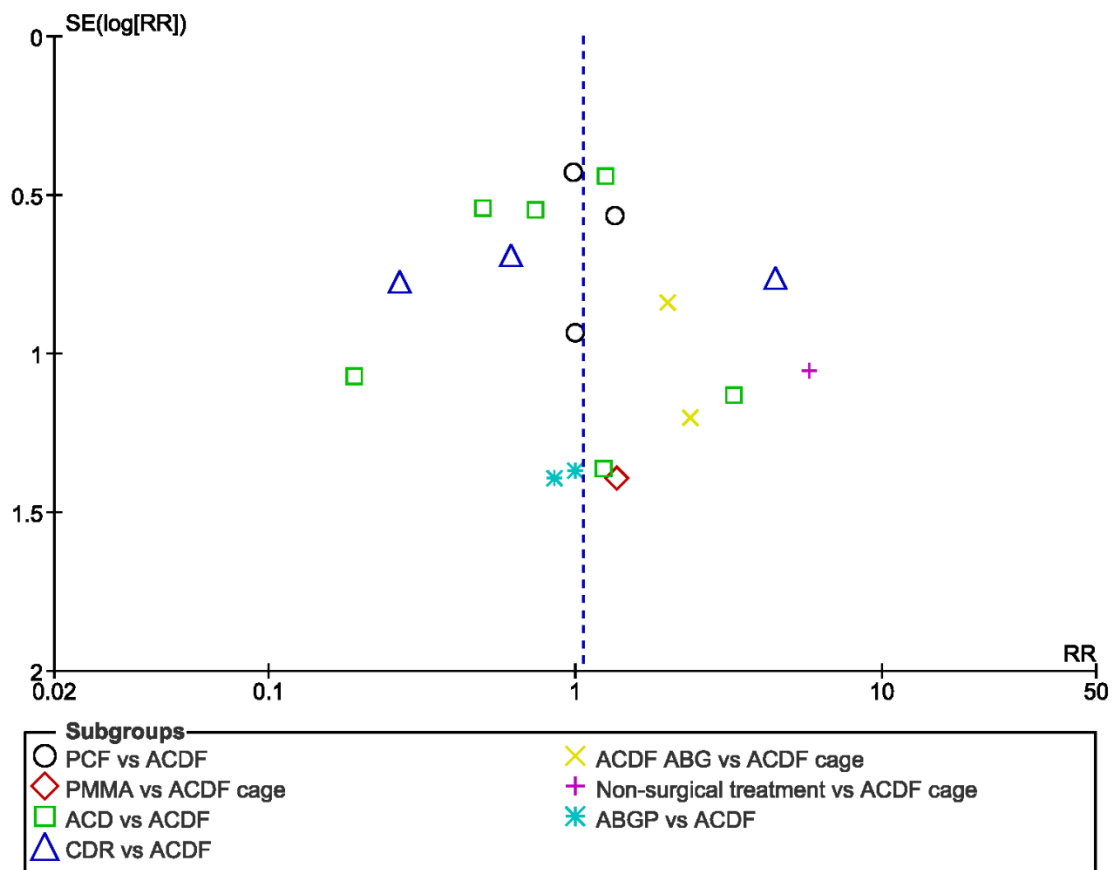
Appendix 4 [Figure] Funnel plot complication rates.



Complication rates

SE = standard error; RR = risk ratio; PCF= Posterior cervical foraminotomy; ACDF= Anterior cervical discectomy with fusion; PMMA = ACDF with polymethylmethacrylate as an intervertebral spacer; ACD = anterior cervical discectomy without intervertebral spacer; CDR = cervical disc replacement; ABG = ACDF with autologous bone graft; ACDFP = ACDF with additional plating; Zero-Profile = ACDF with a zero-profile cage as intervertebral spacer.

Appendix 5 [Figure] Funnel plot reoperation rates.



Reoperation rates

SE = standard error; RR = risk ratio; PCF= Posterior cervical foraminotomy; ACDF= Anterior cervical discectomy with fusion; PMMA = ACDF with polymethylmethacrylate as an intervertebral spacer; ACD = anterior cervical discectomy without intervertebral spacer; CDR = cervical disc replacement; ABG = ACDF with autologous bone graft; ACDFP = ACDF with additional plating.

References

1. Pesce A, Wierzbicki V, Piccione E, Frati A, Raco A, Caruso R. Adjacent segment pathology: natural history or effect of anterior cervical discectomy and fusion? A 10-year follow-up radiological multicenter study using an evaluation scale of the ageing spine. *Eur J Orthop Surg Traumatol*. 2017;27(4):503–511. Accessed 2020 Jan 28. <https://doi.org/10.1007/s00590-017-1936-6>
2. Daimon K, Fujiwara H, Nishiwaki Y, Okada E, Nojiri K, Watanabe M, Katoh H, Shimizu K, Ishihama H, Fujita N, Tsuji T, Nakamura M, Matsumoto M, Watanabe K. A 20-Year Prospective Longitudinal Study of Degeneration of the Cervical Spine in a Volunteer Cohort Assessed Using MRI: Follow-up of a Cross-Sectional Study. *J Bone Joint Surg Am*. 2018;100(10):843–849.
3. Okada E, Matsumoto M, Ichihara D, Chiba K, Toyama Y, Fujiwara H, Momoshima S, Nishiwaki Y, Hashimoto T, Ogawa J, Watanabe M, Takahata T. Aging of the cervical spine in healthy volunteers: a 10-year longitudinal magnetic resonance imaging study. *Spine (Phila Pa 1976)*. 2009;34(7):706–712.
4. Arts M, Bartels R, Bouma GJ, Donk R, Verbeek A, Verhagen W: Richtlijn behandeling van cervicaal radiculair syndroom ten gevolge van een cervicale hernia nucleï pulposi. 2010. Richtlijnen database. Accessed 2020 Jan 28. https://richtlijnen database.nl/richtlijn/cervicaal_radiculair_syndroom_tgv_chnp/cervicaal_radiculair_syndroom_-_startpagina.html
5. Miller LE, Block JE. Safety and effectiveness of bone allografts in anterior cervical discectomy and fusion surgery. *Spine (Phila Pa 1976)*. 2011;36(24):2045–2050.
6. Albert TJ, Murrell SE. Surgical management of cervical radiculopathy. *J Am Acad Orthop Surg*. 1999;7(6):368–376.
7. Bono CM, Ghiselli G, Gilbert TJ, Kreiner DS, Reitman C, Summers JT, Baisden JL, Easa J, Fernand R, Lamer T, Matz PG, Mazanec DJ, Resnick DK, Shaffer WO, Sharma AK, Timmons RB, Toton JF; North American Spine Society. An evidence-based clinical guideline for the diagnosis and treatment of cervical radiculopathy from degenerative disorders. *Spine J*. 2011;11(1):64–72.
8. Zhu Y, Zhang B, Liu H, Wu Y, Zhu Q. Cervical disc arthroplasty versus anterior cervical discectomy and fusion for incidence of symptomatic adjacent segment disease a meta-analysis of prospective randomized controlled trials. *Spine (Phila Pa 1976)*. 2016;41(19):1493–1502.
9. Yao Q, Liang F, Xia Y, Jia C. A meta-analysis comparing total disc arthroplasty with anterior cervical discectomy and fusion for the treatment of cervical degenerative diseases. *Arch Orthop Trauma Surg*. 2016;136(3):297–304.
10. Fallah A, Akl EA, Ebrahim S, Ibrahim GM, Mansouri A, Foote CJ, Zhang Y, Fehlings

- MG. Anterior cervical discectomy with arthroplasty versus arthrodesis for single-level cervical spondylosis: A systematic review and meta-analysis. *PLoS One*. 2012;7(8). Accessed 2020 Jan 28. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0043407>
11. Ren C, Song Y, Xue Y, Yang X. Mid- to long-term outcomes after cervical disc arthroplasty compared with anterior discectomy and fusion: A systematic review and meta-analysis of randomized controlled trials. *Eur Spine J*. 2014;23(5):1115–1123.
 12. Gao F, Mao T, Sun W, Guo W, Wang Y, Li Z, Abhinav P. An updated meta-analysis comparing artificial cervical disc arthroplasty (CDA) versus anterior cervical discectomy and fusion (ACDF) for the treatment of cervical degenerative disc disease (CDDD). *Spine (Phila Pa 1976)*. 2015;40(23):1816–1823.
 13. Zhong ZM, Zhu SY, Zhuang JS, Wu Q, Chen JT. Reoperation After Cervical Disc Arthroplasty Versus Anterior Cervical Discectomy and Fusion: A Meta-analysis. *Clin Orthop Relat Res*. 2016;474(5):1307–1316.
 14. Ma Z, Ma X, Yang H, Guan X, Li X. Anterior cervical discectomy and fusion versus cervical arthroplasty for the management of cervical spondylosis: a meta-analysis. *Eur Spine J*. 2017;26(4):998–1008.
 15. Luo J, Huang S, Gong M, Dai X, Gao M, Yu T, Zhou Z, Zou X. Comparison of artificial cervical arthroplasty versus anterior cervical discectomy and fusion for one-level cervical degenerative disc disease: a meta-analysis of randomized controlled trials. *Eur J Orthop Surg Traumatol*. 2015;25:115–125.
 16. Li GL, Hu JZ, Lu HB, Qu J, Guo LY, Zai FL. Anterior cervical discectomy with arthroplasty versus anterior cervical discectomy and fusion for cervical spondylosis. *J Clin Neurosci*. 2015;22(3):460–467.
 17. Wu AM, Xu H, Mullinix KP, Jin HM, Huang ZY, Lv QB, Wang S, Xu HZ, Chi YL. Minimum 4-Year Outcomes of Cervical Total Disc Arthroplasty Versus Fusion. *Medicine (Baltimore)*. 2015;94(15). Accessed 2020 Jan 28. https://journals.lww.com/md-journal/fulltext/2015/04030/Minimum_4_Year_Outcomes_of_Cervical_Total_Disc.9.aspx
 18. Gao Y, Liu M, Li T, Huang F, Tang T, Xiang Z. A meta-analysis comparing the results of cervical disc arthroplasty with anterior cervical discectomy and fusion (ACDF) for the treatment of symptomatic cervical disc disease. *J Bone Joint Surg Am*. 2013;95(6):555–561.
 19. Li ZJ, Wang Y, Xu GJ, Tian P. Is PEEK cage better than titanium cage in anterior cervical discectomy and fusion surgery? A meta-analysis. *BMC Musculoskelet Disord*. 2016;17(1):1–9.
 20. Shangguan L, Ning GZ, Tang Y, Wang Z, Luo ZJ, Zhou Y. Discover cervical disc arthroplasty versus anterior cervical discectomy and fusion in symptomatic cervical disc

- diseases: A meta-analysis. PLoS One. 2017;12(3). Accessed 2020 Jan 28.
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0174822>
21. Findlay C, Ayis S, Demetriades AK. Total disc replacement versus anterior cervical discectomy and fusion : a systematic review with meta-analysis of data from a total of 3160 patients across 14 randomized controlled trials with both short- and medium- to long-term outcomes. Bone Jt J. 2018;100B(8):991–1001.
22. McAfee PC, Reah C, Gilder K, Eisermann L, Cunningham B. A meta-analysis of comparative outcomes following cervical arthroplasty or anterior cervical fusion: Results from 4 prospective multicenter randomized clinical trials and up to 1226 patients. Spine (Phila Pa 1976). 2012;37(11):943–952.
23. Gutman G, Rosenzweig DH, Golan JD. The surgical treatment of cervical radiculopathy: meta-analysis of randomized controlled trials. Spine (Phila Pa 1976). 2018;43(6). Accessed 2020 Jan 28.
https://journals.lww.com/spinejournal/fulltext/2018/03150/Surgical_Treatment_of_Cervical_Radiculopathy_.17.aspx
24. Liu WJ, Hu L, Chou PH, Wang JW, Kan WS. Comparison of Anterior Cervical Discectomy and Fusion versus Posterior Cervical Foraminotomy in the Treatment of Cervical Radiculopathy: A Systematic Review. Orthop Surg. 2016;8(4):425–431.
25. Shamseer L, Moher D, Clarke M, Ghera D, Liberati A, Petticrew M, Shekelle P, Stewart LA; PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (prisma-p) 2015: Elaboration and explanation. BMJ. 2015;349(January):1–25.
26. Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). Cochrane Handbook for Systematic Reviews of Interventions. Version 6.0. Cochrane, 2019. Accessed 2020 Jan 28. www.training.cochrane.org/handbook
27. Higgins JPT, Altman DG, Gøtzsche PC, Jüni P, Moher D, Oxman AD, Savovic J, Schulz KF, Weeks L, Sterne JA; Cochrane Bias Methods Group; Cochrane Statistical Methods Group. The Cochrane Collaboration’s tool for assessing risk of bias in randomised trials. BMJ. 2011;343(7829):1–9.
28. Wirth FP, Dowd GC, Sanders HF, Wirth C. Cervical discectomy. A prospective analysis of three operative techniques. Surg Neurol. 2000;53(4):340–348.
29. Ebrahim KS, El-Shehaby A, Darwish A, Faiza A, Ma’moun E. Anterior or posterior foraminotomy for unilateral cervical radiculopathy. Pan Arab J Neurosurg. 2011;15(2):34–46.
30. Ruetten S, Komp M, Merk H, Godolias G. Full-Endoscopic Cervical Posterior Foraminotomy for the Operation of Lateral Disc Herniations Using 5.9-mm Endoscopes : a prospective, randomized, controlled study. Spine (Phila Pa 1976). 2008;33(9):940–948.

31. Barlöcher CB, Barth A, Krauss JK, Binggeli R, Seiler RW. Comparative evaluation of microdiscectomy only , autograft fusion , polymethylmethacrylate interposition , and threaded titanium cage fusion for treatment of single-level cervical disc disease : a prospective randomized study in 125 patients. *Neurosurg Focus*. 2002;12(1):1–7.
32. Orief T, Ramadan I, Seddik Z, Kamal M, Rahmany M, Takayasu M. Comparative evaluation of bone-filled Polymethylmethacrylate implant, autograft fusion, and Polyetheretherketone cervical cage fusion for the treatment of single -level cervical disc disease. *Asian J Neurosurg*. 2010;5(2):46–56.
33. Hauerberg J, Kosteljanetz M, Bøge-Rasmussen T, Dons K, Gideon P, Springborg JB, Wagner A. Anterior Cervical Discectomy With or Without Fusion With Ray Titanium Cage: a prospective randomized clinical study. *Spine (Phila Pa 1976)*. 2008;33(5):458–464.
34. Nemoto O, Kitada A, Naitou S, Tachibana A, Ito Y, Fujikawa A. Stand-alone anchored cage versus cage with plating for single-level anterior cervical discectomy and fusion: a prospective, randomized, controlled study with a 2-year follow-up. *Eur J Orthop Surg Traumatol*. 2015;25:127–134.
35. Lind B, Zoëga B, Rosen H. Autograft versus interbody fusion cage without plate fixation in the cervical spine: A randomized clinical study using radiostereometry. *Eur Spine J*. 2007;16(8):1251–1256.
36. Löfgren H, Engquist M, Hoffmann P, Sigstedt B, Vavruch L. Clinical and radiological evaluation of Trabecular Metal and the Smith-Robinson technique in anterior cervical fusion for degenerative disease: A prospective, randomized, controlled study with 2-year follow-up. *Eur Spine J*. 2010;19(3):464–473.
37. Fernández-Fairen M, Sala P, Dufoo M, Ballester J, Murcia A, Merzthal L. Anterior cervical fusion with tantalum implant: A prospective randomized controlled study. *Spine (Phila Pa 1976)*. 2008;33(5):465–472.
38. Zoëga B, Rosén H, Lind B. Anterior cervical discectomy and fusion with or without plate fixation. A prospective and randomized study. *Neuro-orthopedics*. 2000; 28(1):39-51.
39. Engquist M, Löfgren H, Öberg B, Holtz A, Peolsson A, Söderlund A, Vavruch L, Lind B. Surgery Versus Nonsurgical Treatment of Cervical Radiculopathy : a prospective, randomized study comparing surgery plus physiotherapy with physiotherapy alone with a 2-year follow-up. *Spine (Phila Pa 1976)*. 2013;38(20):1715–1722.
40. Schröder J, Große-Dresselhaus F, Schul C, Wassmann H. PMMA versus titanium cage after anterior cervical discectomy - A prospective randomized trial. *Zentralbl Neurochir*. 2007;68(1):2–7.
41. Donk RD, Verbeek ALM, Verhagen WIM, Groenewoud H, Hosman AJF, Bartels RHMA. What's the best surgical treatment for patients with cervical radiculopathy due to single-

- level degenerative disease? A randomized controlled trial. *PLoS One*. 2017;12(8). Accessed 2020 Jan 28. <https://doi.org/10.1371/journal.pone.0183603>
42. Xie JC, Hurlbert RJ. Discectomy versus Discectomy with Fusion versus Discectomy with Fusion and Instrumentation: A Prospective Randomized Study. *Neurosurgery*. 2007;61(1):107–117.
43. Sundseth J, Fredriksli OA, Kolstad F, Johnsen LG, Pripp AH, Andresen H, Myrseth E, Müller K, Nygaard ØP, Zwart JA; NORCAT study group. The Norwegian Cervical Arthroplasty Trial (NORCAT): 2-year clinical outcome after single-level cervical arthroplasty versus fusion—a prospective, single-blinded, randomized, controlled multicenter study. *Eur Spine J*. 2017;26(4):1225–1235.
44. Li Y, Hao D, He B, Wang X, Yan L. The Efficiency of Zero-profile Implant in Anterior Cervical Discectomy Fusion: A Prospective Controlled Long-term Follow-up Study. *J Spinal Disord Tech*. 2015;28(10):398–403.
45. Vleggeert-Lankamp CLA, Janssen TMH, van Zwet E, Goedmakers CMW, Bosscher L, Peul W, Arts MP. The NECK trial: Effectiveness of anterior cervical discectomy with or without interbody fusion and arthroplasty in the treatment of cervical disc herniation; a double-blinded randomized controlled trial. *Spine J*. 2019;19(6):965–975.
46. Oktenoglu T, Cosar M, Ozer AF, Iplikcioglu C, Sasani M, Canbulat N, Bavbek C, Sarioglu AC. Anterior cervical microdiscectomy with or without fusion. *J Spinal Disord Tech*. 2007;20(5):361–368.
47. Persson LC, Lilja A. Pain, coping, emotional state and physical function in patients with chronic radicular neck pain. A comparison between patients treated with surgery, physiotherapy or neck collar - a blinded, prospective randomized study. *Disabil Rehabil*. 2001;23(8):325–335.
48. Nabhan A, Ahlhelm F, Pitzen T, Steudel WI, Jung J, Shariat K, Steimer O, Bachelier F, Pape D. Disc replacement using Pro-Disc C versus fusion: a prospective randomised and controlled radiographic and clinical study. *Eur spine J*. 2007;16(3):423–430.
49. Silber JS, Anderson DG, Daffner SD, Brislin BT, Leland JM, Hilibrand AS, Vaccaro AR, Albert TJ. Donor site morbidity after anterior iliac crest bone harvest for single-level anterior cervical discectomy and fusion. *Spine (Phila Pa 1976)*. 2003;28(2):134–139.
50. Xie Y, Li H, Yuan J, Fu L, Yang J, Zhang P. A prospective randomized comparison of PEEK cage containing calcium sulphate or demineralized bone matrix with autograft in anterior cervical interbody fusion. *Int Orthop*. 2015;39(6):1129–1136.
51. Thomé C, Leheta O, Krauss JK, Zevgaridis D. A prospective randomized comparison of rectangular titanium cage fusion and iliac crest autograft fusion in patients undergoing anterior cervical discectomy. *J Neurosurg Spine*. 2006;4(1):1–9.

52. van Middelkoop M, Rubinstein SM, Ostelo R, van Tulder MW, Peul W, Koes BW, Verhagen AP. No additional value of fusion techniques on anterior discectomy for neck pain: a systematic review. *Pain*. 2012;153(11):2167–2173.
53. Gebremariam L, Koes BW, Peul WC, Huisstede BM. Evaluation of treatment effectiveness for the herniated cervical disc: a systematic review. *Spine (Phila Pa 1976)*. 2012;37(2). Accessed 2020 Jan 28.
https://journals.lww.com/spinejournal/fulltext/2012/01150/Evaluation_of_Treatment_Effectiveness_for_the.18.aspx
54. Cabraja M, Koeppen D, Lanksch WR, Maier-Hauff K, Kroppenstedt S. Polymethylmethacrylate-assisted ventral discectomy: rate of pseudarthrosis and clinical outcome with a minimum follow-up of 5 years. *BMC Musculoskelet Disord*. 2011;12:140. Accessed 2020 Jan 28.
<https://bmcmusculoskeletdisord.biomedcentral.com/articles/10.1186/1471-2474-12-140>
55. Klingler J-H, Krüger MT, Sircar R, Kogias E, Scholz C, Volz F, Scheiwe C, Hubbe U. PEEK cages versus PMMA spacers in anterior cervical discectomy: comparison of fusion, subsidence, sagittal alignment, and clinical outcome with a minimum 1-year follow-up. *ScientificWorldJournal*. 2014;2014:398396. Accessed 2020 Jan 28.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4106069/>
56. van den Bent MJ, Oosting J, Wouda EJ, van Acker RE, Ansink BJ, Braakman R. Anterior cervical discectomy with or without fusion with acrylate. A randomized trial. *Spine (Phila Pa 1976)*. 1996;21(7):834–840.
57. Lubelski D, Healy AT, Silverstein MP, Abdullah KG, Thompson NR, Riew KD, Steinmetz MP, Benzel EC, Mroz TE. Reoperation rates after anterior cervical discectomy and fusion versus posterior cervical foraminotomy: a propensity-matched analysis. *Spine J*. 2015;15(6):1277–1283.
58. Schebesch K-M, Albert R, Schodel P, Proescholdt M, Lange M, Brawanski A. A single neurosurgical center's experience of the resolution of cervical radiculopathy after dorsal foraminotomy and ventral discectomy. *J Clin Neurosci*. 2011;18(8):1090–1092.
59. Mok JK, Sheha ED, Samuel AM, McAnany SJ, Vaishnav AS, Albert TJ, Gang CH, Qureshi S. Evaluation of Current Trends in Treatment of Single-level Cervical Radiculopathy. *Clin spine Surg*. 2019;32(5). Accessed 2020 Jan 28.
https://journals.lww.com/jspinaldisorders/fulltext/2019/06000/Evaluation_of_Current_Trends_in_Treatment_of.11.aspx
60. Maldaner N, Burkhardt J-K, Stienen MN, Goldberg J, Bervini D, Bijlenga P, Croci D, Zumofen D, D'Alonzo D, Marbacher S, Maduri R, Daniel RT, Serra C, Esposito G, Neidert MC, Bozinov O, Regli L. Decision-making and neurosurgeons' agreement in the management of aneurysmal subarachnoid haemorrhage based on computed tomography angiography. *Acta Neurochirurgica*. 2018;160(2):253–260. Accessed 2020 Jan 28.

<https://doi.org/10.1007/s00701-017-3415-6>

61. Sorenson R, Scott IU, Tucker SH, Chinchilli VM, Papachristou GC. Practice patterns of cataract surgeons at academic medical centers for the management of inadequate capsule support for intracapsular or sulcus intraocular lens placement during cataract surgery. *J Cataract Refract Surg*. 2016;42(2):239–245.
62. van Bakelen NB, Buijs GJ, Jansma J, de Visscher JG, Hoppenreijts TJ, Bergsma JE, Stegenga B, Bos RR. Decision-making considerations in application of biodegradable fixation systems in maxillofacial surgery--a retrospective cohort study. *J cranio maxill surg*. 2014;42(5):417–422.
63. Tschugg A, Neururer S, Scheufler KM, Ulmer H, Thomé C, Hegewald AA. Comparison of posterior foraminotomy and anterior foraminotomy with fusion for treating spondylotic foraminal stenosis of the cervical spine: study protocol for a randomized controlled trial (ForaC). *Trials*. 2014;15:437. Accessed 2020 Jan 28. <https://doi.org/10.1186/1745-6215-15-437>
64. Broekema AEH, Kuijlen JMA, Lesman-Leegte GAT, Bartels RH, van Asselt AD, Vroomen PC, van Dijk JM, Reneman MF, Soer R, Groen RJ; FACET study group investigators. Study protocol for a randomised controlled multicentre study: the Foraminotomy ACDF Cost-Effectiveness Trial (FACET) in patients with cervical radiculopathy. *BMJ Open*. 2017;7(1). Accessed 2020 Jan 28. <https://bmjopen.bmj.com/content/7/1/e012829>