

<div>Introduction</div> <div>Cervical disc arthroplasty (CDA) is devised as an alternative to anterior cervical discectomy and fusion (ACDF) for symptomatic cervical disc disease (CDD). However, the benefits and harms of CDA at mid- to long-term follow-up is inconclusive. We conducted this meta-analysis to validate the benefits and harms of CDA at mid- to long-term follow-up.</div>	<div>Methods</div> <div>Electronic searches were made in PubMed, EMBASE, and the Cochrane Central Register of Controlled Trials. Outcomes were reported as relative risk or standardized mean difference with the corresponding 95% confidence interval. We assessed the pooled data using a random-effects model. Trial sequential analysis (TSA) was applied to test the robustness of our findings and get more conservative estimation.</div>	<div>Results</div> <div>Seven trials were included, involving 2,302 participants. The results of this meta-analysis indicated that CDA brought about better overall success, lower neck disability index (NDI) scores, better NDI success, lower neck and arm pain scores, greater SF-36 Physical Component Summary (PCS) and Mental Component Summary (MCS) scores, greater range of motion (ROM) at the operative level, fewer secondary surgical procedures and more adverse events ($P < 0.05$) than ACDF. CDA was not statistically different from ACDF in neurological success and patient satisfaction ($P > 0.05$).</div>	<div>Conclusions</div> <div>In conclusion, the outcomes (overall success, NDI scores, NDI success, neck and arm pain scores, SF-36 PCS and MCS scores, ROM at the operative level, secondary surgical procedures, neurological success, and patient satisfaction) after CDA were superior or equivalent to those after ACDF, except adverse events.</div> <div>Learning Objectives</div> <div>By the conclusion of this session, participants should be able to: 1) Describe the importance of cervical disc arthroplasty for symptomatic cervical disc disease at mid- to long-term follow-up, 2) Discuss, in small groups, why cervical disc arthroplasty is superior to anterior cervical discectomy and fusion at mid- to long-term follow-up, 3) Identify an effective treatment for the treatment of symptomatic cervical disc disease at mid- to long-term follow-up.</div> <div>[Default Poster]</div>
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