

## Cervical discectomy, fusion is durable and cost-effective

## March 29 2013



Single-level instrumented anterior cervical discectomy and fusion is durable and cost-effective after five years of follow-up, according to a study published in the March 15 issue of *Spine*.

(HealthDay)—Single-level instrumented anterior cervical discectomy and fusion (ACDF) is durable and cost-effective after five years of follow-up, according to a study published in the March 15 issue of *Spine*.

Leah Y. Carreon, M.D., from the Norton Leatherman Spine Center in Louisville, Ky., and colleagues analyzed data from 352 control patients (182 women and 170 men; mean age, 44.6 years) who had undergone ACDF with complete five-year follow-up data and were part of a trial for cervical disc arthroplasty. Using the 2012 Medicare Fee schedule, direct costs of the interventions were determined. Short Form-6D was used to determine health utility.



The researchers found that cost per patient for the index ACDF was \$15,714. During five years of follow-up, 41 repeat ACDFs, 15 posterior fusions, six foraminotomies, two implant removals, two hematoma evacuations, and one esophageal fistula repair were performed. In each year of follow-up, mean quality-adjusted life year (QALY) gained was 0.16, 0.18, 0.17, 0.18, and 0.18, with a cumulative 0.88 QALY gain over five years. At one year, the cost/QALY gain was \$104,831; \$53,074 at year two; \$37,717 at year three; \$28,383 at year four; and \$23,460 at year five. Subanalysis included upper extremity procedures performed (11 nerve releases and 26 rotator cuff repairs were done within five years after the index ACDF). Including upper extremity procedures, the cost/QALY gain at one year was \$106,256; \$54,622 at year two; \$38,836 at year three; \$29,454 at year four; and \$24,479 at year five.

"This study indicates that at five-year follow-up, single-level instrumented ACDF is both effective and durable resulting in a favorable cost/QALY gained as compared to other widely accepted health care interventions," the authors write.

**More information:** Abstract

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Citation: Cervical discectomy, fusion is durable and cost-effective (2013, March 29) retrieved 6 May 2024 from <a href="https://medicalxpress.com/news/2013-03-cervical-discectomy-fusion-durable-cost-effective.html">https://medicalxpress.com/news/2013-03-cervical-discectomy-fusion-durable-cost-effective.html</a>

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