

Single-Level Degenerative Cervical Disc Disease and Driving Disability: Results from a Prospective, Randomized Trial

Study Design Post hoc analysis of prospective, randomized trial.

Objective To investigate the disability associated with driving and single-level degenerative, cervical disc disease and to investigate the effect of surgery on driving disability.

Methods Post hoc analysis of data obtained from three sites participating in a multicenter, randomized, controlled trial comparing cervical disc arthroplasty (TDA) with anterior cervical discectomy and fusion (ACDF). The driving subscale of the Neck Disability Index (NDI) was analyzed for all patients. A dichotomous severity score was created from the NDI. Statistical comparisons were made within and between groups.

Results Two-year follow-up was available for 118/135 (87%) patients. One half of the study population (49.6%) reported moderate or severe preoperative driving difficulty. This disability associated with driving was similar among the two groups (ACDF: 2.5 ± 1.1 , TDA: 2.6 ± 1.0 , $p = 0.646$). The majority of patients showed improvement, with no or little driving disability, at the sixth postoperative week (ACDF: 75%, TDA: 90%, $p = 0.073$). At no follow-up point did a difference exist between groups according to the severity index.

Conclusions Many patients suffering from radiculopathy or myelopathy from cervical disc disease are limited in their ability to operate an automobile. Following anterior cervical spine surgery, most patients are able to return to comfortable driving at 6 weeks.

單節段頸椎椎間盤退變症及駕駛殘障：結果來自一項前瞻性，隨機試驗

研究設計 事後分析的前瞻性，隨機試驗。

目的 探討單節段頸椎椎間盤退變症與駕駛有關聯的殘障，並探討手術對駕駛殘障的影響。

方法 事後分析的數據從三個地方取得，它們都參與一項多中心，隨機，對照試驗比較頸椎椎間盤置換術（TDA）與頸椎前路椎間盤切除融合術（ACDF）。所有患者都進行了頸部殘疾指數（NDI）的駕駛分量表分析。二分法嚴重程度評分由從NDI創建出來。每組內與每組之間都進行統計比較。

結果 兩年跟進可用於118/135（87%）名患者。研究群組（49.6%）的一半表示有中度或嚴重的術前駕駛困難。這種與駕駛相關的殘障在兩組間都是類似的（ACDF： 2.5 ± 1.1 ，TDA： 2.6 ± 1.0 ， $P = 0.646$ ）。在術後第6周，大多數患者都有改善，沒有或很少駕駛殘障（ACDF：75%，TDA：90%， $P = 0.073$ ）。根據嚴重程度指數，在各組之間沒有跟進點是有差別的。

結論 許多患者因頸椎椎間盤疾病而引致神經根病變或脊髓病，這些都限制了他們操作汽車的能力。在前路頸椎手術後，大多數患者都能夠在6個星期回到舒適的駕駛。