

**Carragee EJ, Chen Y, et al. Can Discography Cause Long-term Back Symptoms in Previously Asymptomatic Subjects? Spine 2000;25(14):1803-1808.**

Design: Prospective cohort study

Brief summary of results:

- 38 participants (26 men, 12 women, mean age 42.8) were recruited from the pain management and functional restoration clinics at Stanford University
  - o One source of participants (n=20) was recruited from a pool of 350 patients who had had cervical discectomy with or without fusion 2 to 4 years earlier
    - 10 of these had been pain-free since cervical spine surgery (successful surgery); the other 10 had continued to have neck and upper extremity pain after surgery (failed surgery)
  - o Another source of participants (n=12) were identified from medical charts at the pain management and functional restoration clinics as having somatization disorder by ICD-9 coding
    - None had a history of back pain in their charts
    - Their charts were reviewed to confirm the diagnosis of somatization disorder by DSM-IV criteria
    - These individuals were contacted by post card and invited to take part (without pay) in the study
    - 6 of these were selected for discography; the other 6 somatization participants were selected as controls without discography
  - o The third source of participants (n=6) did have chronic low back pain and positive results on discography
- The 20 participants with cervical discectomy, 6 participants with somatoform disorder, and the 6 with chronic low back pain had discography under the Walsh protocol and then were followed for one year
  - o The pain thermometer (a 5 point visual analog scale) for low back pain was elicited 1 hour, 1 day, 1 week, 1 month, and 1 year after discography was done
- The remaining 6 participants with somatoform disorder did not have discography; this group did not have the earlier pain VAS assessments, but did have that information elicited 1 month and 1 year after recruitment
- Numerous analyses were reported, but the comparison most germane to the effects of discography in the setting of somatoform disorder involves the 6 who did and the 6 who did not have the procedure
  - o All 6 somatoform participants who had discography had LBP at 1 year; on the 5 point VAS scale their scores were 3,2,1,1,2, and 3
  - o Only one somatoform participant in the non-discography group had LBP at 1 year, with a score of 1 point; the other 5 all had no LBP

Authors' conclusions:

- Individuals with emotional, psychological, and chronic pain problems are likely to be at risk of persistent pain after discography

- Discography should not be done in the setting of somatoform disorder or other situations in which there is significant psychological distress

Comments:

- Although the numbers available for comparison are very small, the effect is impressive and not likely to be a chance finding
- It is not usual to measure pain VAS on a scale of 0-5; a scale of 0-10 is much more often used and recognized; the numerical pain rating could be doubled without great risk of distorting the data
- Somatoform patients do not have a high likelihood of having low back pain after one year if they did not have LBP at a baseline assessment
- However, if these patients have provocative discography, they have a high risk of developing significant low back pain in the same one year period

Assessment: Adequate for some evidence that discography in patients with somatoform disorders is likely to create a risk of development of persistent low back pain in the year following the procedure