Relationship Between Smoking and Outcomes After Cubital Tunnel Release

Objectives:
Several sources of literature draw a connection between cigarette smoking and cubital tunnel syndrome. One comparison study demonstrated worse outcomes in smokers treated with transmuscular transposition of the ulnar nerve. Despite this, very little is known about the effect that smoking might have on patients who undergo ulnar nerve decompression at the elbow. The purpose of our study is to evaluate outcomes in patients treated with ulnar nerve decompression, and determine if a smoking history at the time of surgery affected improvement.

Materials and Methods:
Our study used a survey developed from the comparison article with additional questions based on outcome measures from supportive literature. Focus questions of our survey ask a patient about their post-operative improvement including sensation, strength and pain scores. A thorough smoking history was also obtained. Patients treated with cubital tunnel surgery were gathered from a 10-year period. 1,366 surveys were mailed to former patients. 247 surveys with adequate information were returned, representing 227 patients.

Results:
The results of our study show a demographic comparison between smoking and non-smoking groups with no difference in age, mean follow-up, sex, body mass index, workers compensation history, and diabetes (below). Further evaluation compares outcomes in smoking patients between simple decompression and transposition surgeries (side). Smokers show no statistical significance favor of in situ or transposition surgery.

Conclusions:
At the conclusion of this study we find no statistically significant difference in outcomes after ulnar nerve decompression surgery in smokers and non-smokers. Although statistical significance is not found, some observational differences are seen that may have clinical implications. Finally, among smokers, surgical decompression type was not different suggesting that any variations in outcomes are likely not related to simple decompression versus transposition.