Does the Extent of Cubital Tunnel Release Render the Ulnar Nerve Unstable?
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- **Purpose:** The purpose of this study is to reveal whether increasing the extent of decompression results in an increased tendency for subluxation of the ulnar nerve.
- **Methods:** Sixteen cadaveric elbows were examined for nerve instability following in situ ulnar nerve decompression. A release of the ulnar nerve was performed through the cubital tunnel, and extended 7cm distal to a point centered between the medial epicondyle and olecranon. The nerve was then released proximally over a distance of 10 cm in 2 cm increments. Elbows were ranged at each 2 cm interval of release.
- **Results:** A statistically significant trend of instability was noted as the level decompression was advanced proximally (p < 0.05). Overall, eight of the sixteen elbows (50%) ultimately displayed instability of the ulnar nerve following in situ decompression. The highest rate of instability occurred at the interval between 4 and 6 cm of release, although this finding was not significantly different from other intervals of release.
- **Conclusion:** Our study reveals that in situ decompression with a considerable proximal release may result in subsequent instability of the ulnar nerve. We recommend limiting decompression to the cubital tunnel if clinical and electrophysiological studies indicate the cubital tunnel is the source of compression. Further proximal decompression beyond 4 cm might lead to frank instability which could be a source of ongoing nerve symptoms or require additional surgical procedures.