Mini-Open Cubital Tunnel Release: The Bamberger-Howard Method; An Alternative to Endoscopic Release

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Introduction: The cubital tunnel syndrome is the second most common entrapment neuropathy in the upper extremity. To this point, however, there is no gold standard treatment for the condition. The literature shows us that anterior transposition of the nerve as well as In-Situ release are appropriate procedures, though the transposition has shown a higher incidence of complications. Recently Tsai described a new method for in-situ release using an endoscope. Though results have been comparable to transposition and standard in situ release, the learning curve is steep. We propose an alternative mini open approach through a comparable incision. Patients are showing improvement and results are outstanding empirically.

Technique: The patient is placed supine with the arm on a hand table, the elbow on a bolster, and the shoulder externally rotated. A 3-4 cm incision is carried out directly over the course of the ulnar nerve, centered just posterior to the medial epicondyle. After subcutaneous tissue is elevated from the fascia the nasal speculum is inserted, spread, and locked; providing lateral retraction. The lighted Aufricht retractor is used to elevate overlying tissue, allowing direct visualization. Long dissection scissors are advanced to divide the ulnar nerve sheath proximally. The retractors are repositioned and the process is repeated distally for 10 cm. Early active range of motion is encouraged.

Discussion: Our mini-open release is an excellent alternative to endoscopic release using a comparable, 3-4 cm, incision. To this point, complications have been minimal with this technique. This approach is currently being used for primary release of idiopathic cubital tunnel syndrome and is not being used for revision cubital tunnel release. Patients are very satisfied with the procedure as of this writing. Thus far we are following patients up to ____ months out from this procedure. Empiric results are outstanding and retrospective review of results is currently underway.

References: