Use of a Pedicled Adipofascial Flap as a Sling for Anterior Subcutaneous Transposition of the Ulnar Nerve

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Objective

•**Hypothesis:** A pedicled adipofascial flap is a safe and effective procedure to secure the ulnar nerve during anterior subcutaneous transposition in the treatment of cubital tunnel syndrome (CTS)

•**Purpose:** To report follow-up results in patients undergoing this novel procedure over the course of 9 years

Methods

•22 cases from 4/2001 – 5/2010

•Avg. age @surgery: 55.2 yrs (range 28-81 yrs)

•7 male:15 female

•Dominant side disease: 36%

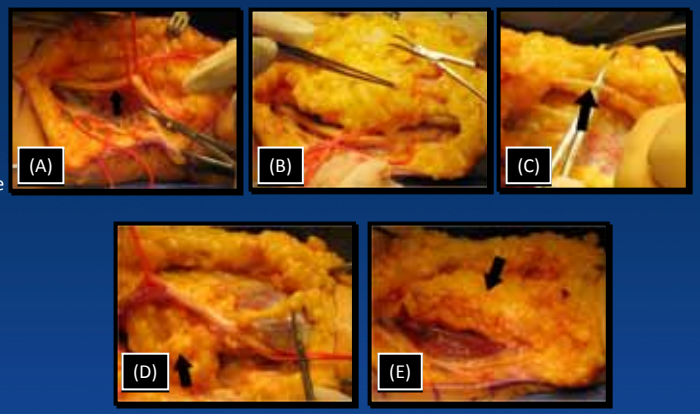
•Outcome Measures: Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire, visual analogue scale (VAS), physical examination, patient function questionnaire

•13 pts had exam + questionnaires

•3 pts completed questionnaire only

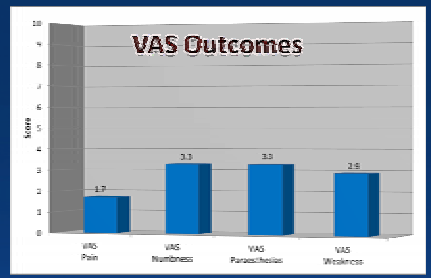
•Avg.follow-up: 3.6 yrs (range 7mo-10 yrs)

Technique



(A) Ulnar nerve is released from cubital tunnel. (B) Vascularized adipose pedicle is elevated from the anteromedial subcutaneous tissue. (C) Look out for the medial antebrachial cutaneous nerve during fat dissection! (D) Pedicle wrapped around transposed ulnar nerve. (E) Nerve encased in protective adipose sheath and will cushion and shield the nerve from surrounding tissue adherence, while performing sling function preventing nerve subluxation.

Results



•Avg. DASH score: 19.0 (SD 14.6, range 0.8-54.2)

•Elbow mobility vs. CTL: 93% for flex-ext arc

•Intrinsic strength: 96% for key pinch

•Avg. outcome satisfaction: 94%

•No post-operative complications and no recurrences of CTS requiring revision surgery.

Conclusions

•This technique is a safe and effective procedure for the treatment of CTS

•Majority of pts achieve excellent results, with resolution of motor and sensory symptoms

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