

SURGICAL OUTCOME OF NON-TRAUMATIC ULNAR ENTRAPMENT NEUROPATHY AT ELBOW

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Introduction: Ulnar neuropathy at elbow is the second most frequent entrapment neuropathy. There is a general agreement on surgical criteria, but surgical approach remains controversial.

Method/Results: We report twenty-eight retrospectively analysed patients (female: male rate 1:1) operated for ulnar neuropathy, two bilaterally (30 surgical interventions). There were 18 grade two and 12 grade three McGowan according to McGowan scale.

Elbow flexion-extension test was performed at surgery to evaluate the competence of ulnar sulcus for nerve subluxation. Two test positive cases for nerve subluxation underwent subfascial transposition of the ulnar nerve.

All were clinically evaluated at one, six months and at 2- 4,5 years postoperatively. Two presented carpal tunnel and one Guyon's canal syndrome.

The most frequent cause of compression was deemed to be the hypertrophy and fibrosis around Osborne's ligament (28/30). In two arteriolar-nervous conflict was documented.

At one month only three patients referred local pain at surgical site that improved in six months.

Long term follow-up revealed sensitive and motor improvement for grade two McGowan. Grade three experienced only sensitive and grip strength improvement, but intrinsic hand muscles remained hypotrophic. Both cases of nerve transfer did satisfactory recovery at long term follow-up.

Conclusions: Clinical stage of neuropathy is decisive factor influencing surgical outcome.

Intraoperative dynamic test is simple and useful in evidencing ulnar subluxation after decompression.

Nerve transfer in such cases avoids recurrence of neuropathy or insufficient nerve recovery.