

3rd International Conference and Exhibition on Orthopedics & Rheumatology

July 28-30, 2014 DoubleTree by Hilton Hotel San Francisco Airport, USA

Carpal tunnel syndrome avoid complications after short incision

I Arrotegui

Hospital General Universitario de Valencia, Spain

Introduction: Adherence of the flexor tendons and severe scar of the median nerve can be reduced using the Chitosan Matrix as an adhesion barrier following mini open carpal tunnel release. The objective was to investigate the potential benefits for complications (Adherence of the flexor tendons and severing scarring involving the median nerve).

Patient samples: The study cohort (Ch matrix group) consisted of consecutive patients (250 patients) who were treated with CH matrix. Patients in the standard procedure group (250 patients in all) were operated on prior to the adoption of matrix use by the surgeon.

Outcome measures: Patients underwent carpal tunnel surgery same technique in both groups and completed follow-up evaluations at no less than 12 months post-operation.

Methods: All patients complained of numbness and/or sensory or weakness disturbance in the median nerve distribution of the hand Tinel and phalen sign tests were positive in approximately two-thirds of the patients. EMG studies were performed in all patients and were positive between mild to severe.

Results: Numbness and paresthesias were relieved in 89% DG group and 86% in control group; pain was relieved in 89% DG and 86% CG. Motoric weakness was relieved in 95% DG and 92% CG. Normal grip strength was found in 93% DG and 91% had normal pinch strength.

Control group:

- Adhesion of the flexor tendons in 3 patients
- 5 patients had scarring of the median nerve
- CH group

Recurrent pain: 1 patient for incomplete division of transverse carpal ligament. The difference in re-operation rate between the collagen matrix group and the standard procedure group is statistically significant ($P < 0.01$).

Conclusion: Findings in this study (reduced pain and lower incidence of adhesions) are consistent with the Ch Matrix acting as an effective adhesion barrier. A thorough knowledge of the anatomy of the carpal tunnel is essential in order to avoid complication and to ensure optimal patient outcome. There are many strong arguments for open (Short Incision 2.5 cm) vs. conservative treatment. Dural matrix is a good physical barrier in order to avoid complications.

athbio@yahoo.es