

Results of 1236 Endoscopic Carpal Tunnel Release Procedures Using the Brown Technique

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ABSTRACT

In a series of 1236 patients who underwent endoscopic carpal tunnel releases using the two-portal Brown technique, the results were favorable in 98%, the failure rate was 2%, the instance of iatrogenic injury was 0.08% (one tendon injury), and the overall complication rate was 0.97%. The patients had resolution of carpal tunnel syndrome symptoms in an average of 14 days and returned to work in an average of 15 days. Recurrence rate to date has been 2%, with the longest follow-up of 30 months. These results indicate that this is a safe and efficacious method of treatment for patients with carpal tunnel syndrome who require surgery.

INTRODUCTION

Surgical treatment of carpal tunnel syndrome was first described in 1947.¹ An open approach to division of the transverse carpal ligament has been the mainstay of surgical treatment for this condition. With the exception of blindly performed divi-

sion of the transverse carpal ligament, open carpal tunnel release requires division of the overlying palmaris brevis muscle, palmar fascia, subcutaneous fat, possibly fibers of the thenar and hypothenar muscle, and skin. Division of these overlying structures has been cited as a cause for "pillar pain" and delay in the patient's return to work and activities of daily living.²

An endoscopic approach to the transverse carpal ligament was first described in 1989.³ In a double blind prospective randomized study comparing patients undergoing endoscopic carpal tunnel release with those undergoing open carpal tunnel release, the results were found to be superior in the endoscopic carpal tunnel release group with respect to postoperative strength, wound tenderness, and earlier return to work and participation in activities of daily living.³ The superiority of endoscopic carpal tunnel release was supported further by a study demonstrating that a two-portal procedure is superior to a one-portal procedure.⁴ Considerable controversy has arisen regarding the ability to divide the transverse carpal ligament safely and completely using an endoscopic technique. Two cadaver studies using the technique described by Chow showed an unacceptably high incidence of incomplete ligament division and other technical complications.^{5,6} These technical

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