SCIENTIFIC PAPER

Endoscopic Carpal Tunnel Release: a Retrospective Study of Complications

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ABSTRACT

Objective: To evaluate the rate of various complications of endoscopic carpal tunnel release and identify the important risk factors.

Patients and Methods: From July 1997 to July 2000, endoscopic carpal tunnel release using the dual portal extrabursal Chow technique was performed in 91 wrists (78 patients) by different surgeons. From August 2000 to March 2002, endoscopic carpal tunnel release was performed in 102 wrists (90 patients) by 1 specialist surgeon or trainees under his supervision.

Results: During the first period of the study, the overall complication rate was 19.8%. The complication rate was reduced to 2.9% during the second part of the study (p < 0.0001), which is comparable with the results of most of the published studies in the literature. No significant correlation was found between complication rates and patient variables such as age, gender, handedness, duration of symptoms, or severity of the condition.

Conclusions: The results of this study suggest that the incidence of complications of endoscopic carpal tunnel release is operator-dependent. The procedure is technically demanding and has a very narrow margin of safety. Patients must always be informed of the potential risks and complications before endoscopic surgery.

Key Words: Carpal tunnel syndrome, Complications, Endoscopic surgery

INTRODUCTION

Carpal tunnel syndrome (CTS) is the most commonly reported nerve entrapment problem.1 The conventional open release has been demonstrated to be effective in treating CTS not responding to conservative treatment.2 However, postoperative discomfort, scar tenderness, weakness, and extended recovery time are the pitfalls of open carpal tunnel release (OCTR).3,4 Besides, complications of OCTR such as neurovascular injury, wound infection, and reflex sympathetic dystrophy (RSD) have been reported in the literature.5,6

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