

# Outcomes of Open Excision of Occult Dorsal Carpal Ganglions

Harkin E, Liskutin TE, Bednar M

Loyola University Medical Center, Department of Orthopaedic Surgery and Rehabilitation  
Maywood, Illinois, USA

## INTRODUCTION

- Ganglion cysts are the most common soft tissue tumor of the hand and a frequent cause of chronic dorsal wrist pain
- To date outcome studies have focused on outcomes of open excision of palpable dorsal wrist ganglions or arthroscopic excision of occult dorsal carpal ganglions
- The goal of our study was to retrospectively review the outcomes of open excision of occult dorsal carpal ganglions

## METHODS

- Retrospective review of 18 patients, 17 women and 1 male
- Patients underwent excision of an occult dorsal carpal ganglion from January 1st 2006 to January 1st 2016 by one of six practicing orthopaedic hand surgeons

## RESULTS

- Patients presented with tenderness to palpation over the dorsal aspect of the wrist and lack of a palpable mass
- All 18 patients had an occult dorsal carpal ganglion confirmed on preoperative MRI
- Mean follow-up was 15.5 weeks (range 0 to 103 weeks)
- All patients underwent open excision of an occult dorsal carpal ganglion
  - 7 underwent arthroscopy following excision without any other identifiable pathology
  - 6 underwent simultaneous PIN transection
- 17 specimens (94.4%) were confirmed to be ganglion cysts on pathology
- No complications were experienced
- Recurrence occurred in 1/18 (5.6%) cases
- 17/18 (94.4%) patients achieved a satisfactory result with improved pain

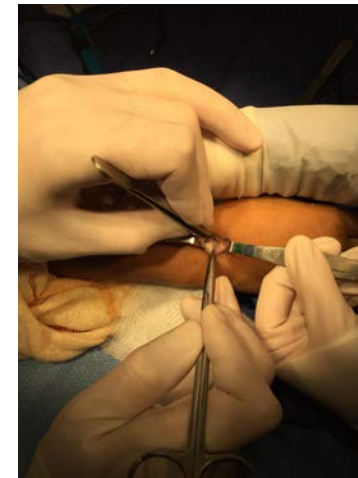
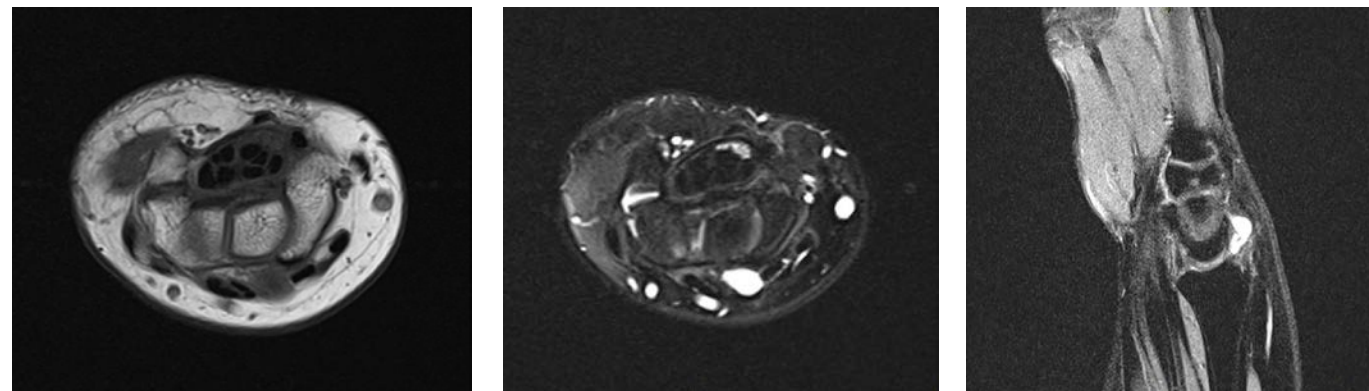


Figure 1: Intraoperative photo demonstrating ganglion excision



Figures 2-4: Preoperative MRI images identifying dorsal carpal ganglion

## TABLE 1

The location of the cyst was confirmed during intraoperative excision

Cyst Location	
Originating from SL ligament	9/18 (50%)
Isolated to the wrist capsule	5/18 (27.8%)
Originating from mid carpal joint	3/18 (16.7%)
Originating from the radiocarpal joint	1/18 (5.6%)

## CONCLUSIONS

- Open excision of occult dorsal carpal ganglions is an effective treatment with results comparable to arthroscopic excision
- Patients demonstrated satisfactory results, no complications, and a recurrence rate of 1/18 (5.6%)