

## Iatrogenic Nerve Injuries During Shoulder Surgery

### Content

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Division of Hand Surgery, Department of Orthopedic Surgery (B.C.C., D.M.B., M.F.K., B.T.E., R.J.S., A.T.B., and A.Y.S.), and Department of Neurological Surgery (R.J.S.), Mayo Clinic, 200 First Street S.W., Rochester, MN 55905. E-mail address for A.Y. Shin: shin.alexander@mayo.edu.

**INTRODUCTION:** The current literature indicates that neurologic injuries during shoulder surgery occur infrequently and result in little if any morbidity. The purpose of this study was to review one institution's experience treating patients with iatrogenic nerve injuries after shoulder surgery.

**METHODS:** A retrospective review of the records of patients evaluated in a brachial plexus specialty clinic from 2000 to 2010 identified twenty-six patients with iatrogenic nerve injury secondary to shoulder surgery. The records were reviewed to determine the operative procedure, time to presentation, findings on physical examination, treatment, and outcome.

**RESULTS:** The average age was forty-three years (range, seventeen to seventy-two years), and the average delay prior to referral was 5.4 months (range, one to fifteen months). Seven nerve injuries resulted from open procedures done to treat instability; nine, from arthroscopic surgery; four, from total shoulder arthroplasty; and six, from a combined open and arthroscopic operation. The injury occurred at the level of the brachial plexus in thirteen patients and at a terminal nerve branch in thirteen. Fifteen patients (58%) did not recover nerve function after observation and required surgical management. A structural nerve injury (laceration or suture entrapment) occurred in nine patients (35%), including eight of the thirteen who presented with a terminal nerve branch injury and one of the thirteen who presented with an injury at the level of the brachial plexus.

**CONCLUSIONS:** Nerve injuries occurring during shoulder surgery can produce severe morbidity and may require surgical management. Injuries at the level of a peripheral nerve are more likely to be surgically treatable than injuries of the brachial plexus. A high index of suspicion and early referral and evaluation should be considered when evaluating patients with iatrogenic neurologic deficits after shoulder surgery.

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