

Long-Term Follow Up (14-23 years) of Patients Treated with Closed Reduction and Splinting for Simple Dislocation of the Elbow

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INTRODUCTION:

We previously reported the medium term (7-14) year results of a patient cohort treated with closed reduction for a simple elbow dislocation. These results were generally excellent however there is continued discussion about which injuries and structures should be considered for surgical repair and/or stabilization.

We report the long-term follow up our original patient cohort at a minimum of 14 years following treatment for a simple elbow dislocation using closed reduction and a short period of splinting.

METHODS:

The study was approved by our institutional review board. We consulted our trauma database and contacted the patients previously reviewed and reported to ask them to participate in this long-term follow-up study.

Patients were contacted by telephone and letter and invited to interview with a trained but blinded researcher. Each patient underwent an interview over a video platform. Each patient was assessed using a previously validated patient satisfaction questionnaire, the Oxford Elbow Score (OES) and the DASH score. Patients were also asked about employment, sport, and any other activities.

RESULTS:

Seventy-nine of the original cohort of 110 patients (71.8%) were contactable and of these, 67 patients, 60.9% of the original cohort, agreed to participate in this study. These patients formed the study group. We confirmed that 15 patients were deceased. Twenty-eight patients (25.4%) could not be contacted and were considered non-responders.

The average patient age was 49 years but men were younger than women. Patients were reviewed at a mean of 18 (range, 14-23) years following their injury. Female patients reported poorer DASH and Oxford Elbow Scores than male patients but there was no difference in their reported levels of patient satisfaction.

When scores were compared from earlier patient assessment 10 years ago, the DASH and OES did not show any significant deterioration over time.

One patient 1.5% had reported that they undergone total elbow replacement surgery for pain and stiffness. Two patients had previously reported that they had undergone surgery for stiffness in our earlier study. No other patients had undergone any surgical procedure and all patients reported excellent day to day function without limitation and excellent levels of satisfaction. No patients underwent surgery for instability.

DISCUSSION AND CONCLUSION: We report long-term follow up for a clearly identified cohort of patients treated with closed reduction and splinting. The results support the contention that the long-term outcome of this treatment strategy is excellent with patients reporting excellent levels of function and satisfaction. At a minimum of 14 years follow up, functional outcome scores for these patients are excellent.