EARLY OPERATIVE STABILIZATION AND MOBILIZATION FOR UNSTABLE ELBOW DISLOCATIONS

Department of Orthopaedic Surgery, Kyungpook National University Hospital, Daegu, *Semyung Christian Hospital, Pohang, Korea

In-Ho Jeon, Sang-Won Lee, In-Hyeok Rhyou, Chaeik Chung, Poong-Taek Kim

Purpose

Dislocation of the elbow is the second most common dislocation in the upper extremity. Although most have recommended closed reduction followed by a short period of immobilization, others have recommended primary surgical repair of the ligaments. A retrospective study of early operative treatment of unstable elbow dislocations is reported.

Methods

We present the early results of twenty-two such injuries including three terrible triads of the elbow and nine unstable elbows. Surgical indications of the unstable elbow were subluxation or non-congruent elbow joint on the radiographs following closed reduction and those which required extension block splint more than 30~45 degrees to maintain reduction. The avulsed lateral collateral ligament complex and medical collateral ligament were reattached using a bone anchor or bone tunnel in all cases. Coronoid and radial head fractures were fixed with screw and plate. In the nine unstable dislocations, full stability was only restored when the medial and lateral collateral ligaments were reattached. Mobilization without a hinged fixator was allowed from day three to seven. Patients were assessed for stability, ROM, and functional disability using the Mayo elbow performance score at an average of 12 months.

Results

No elbows redislocated post-operatively and two patients complained of instability. Two failed to gain functional range of motion and two patients presented ulnar nerve symptoms postoperatively. Ectopic ossification was found in 63% of the patients. Mean extension was 15° (10°~30°), flexion 130° (120°~140°), pronation 70° (50°~90°), supination 80° (75°~90°). Mean MEPS was 89.0 (75~100).

Conclusion

Early stabilization of unstable elbow dislocations, including the terrible triad, prevents the poor results which are commonly found following non-operative treatment of these injuries. An external fixator is not usually required in the acute setting.