Introduction

The Treatment of Perilunate Injuries

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Perilunate dislocations and fracture-dislocations (PLD-PLFD) continue to both fascinate and puzzle wrist surgeons. There are several reasons for this. This acute, high-energy injury, which often occurs in young, active males, results in one of the most complex combinations of osseous and/or ligamentous lesions that can be encountered at the wrist.

The late sequelae of this injury can be devastating and include carpal instability, arthritis, pain, and functional impairment. A PLD-PLFD is never exactly the same from one patient to another in terms of pathology and displacement, which is why investigators have striven to develop a classification that can aid in understanding the pathology specific to each case and in planning treatment. No displaced variants of this injury, or PLIND, have recently been recognized. The number of cases that are seen even at specialized centers is small, which makes it difficult to study the outcomes of the different treatment protocols.

Toward the end of the last century, it became apparent that the results following an early open reduction and pinning combined with ligament repair were far superior to a closed reduction and casting alone in terms of long-term carpal stability and scaphoid healing. A closed reduction in the emergency room, followed by early surgery within 48 hours of injury, has thus become the gold standard. Despite the maintenance of an anatomic alignment, however, the devel-

opment of long-term, post-traumatic midcarpal arthrosis is the rule, although it may be asymptomatic.

Since 2000, a variety of investigators have attempted to apply mini-invasive techniques, including wrist arthroscopy, to the treatment of acute PLD-PLFDs, with the goal of improving wrist motion and reducing the incidence of late arthrosis. Arthroscopy has allowed the surgeon to visualize the pathology without the need for extensile incisions and has expanded the options for percutaneous fixation. The reader must remember, however, that not all PLD-PLFDs such as scapho-capitate syndrome, are amenable to these techniques. Any mini-invasive technique must also match the outcomes seen following open surgery. In some cases, an immediate salvage procedure may be indicated.

The special focus session for this issue hones in on the treatment of perilunate injuries. It includes an innovative paper by Dr. Ring and colleagues that examines the reasons for reoperation after surgical treatment of PLD-PLFD, a paper on the use of temporary external fixation and adjuvant pinning for polytraumatized patients by Dr. Olga Savvidou and colleagues, as well as three papers on arthroscopic management by Drs. Park et al, Dr. Bo, and myself that highlight the use of arthroscopy or the combination of arthroscopy and mini-open techniques.