

## **“I stopped boxing, and now my wrist hurts”**

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**HISTORY:** A 31 year-old right hand dominant male presents with left wrist pain for 3 years. He denies injuring his wrist at any time, and the onset of pain has been insidious. He works in maintenance and complains of difficulty doing his job when he has to grip or lift anything heavy. He will drop things due to severe pain with a tight grip, but denies other weakness. Pain is worst in the evening, but also complains of morning stiffness. He has tried wearing a brace and taking NSAIDs on a regular basis without improvement in pain. He is a former boxer and denies any significant injury while boxing. He stopped boxing 4 years ago for reasons he can't recall. He wore protective gloves and taped his wrists every time he boxed.

### **PHYSICAL EXAMINATION:**

Examination of left wrist revealed dorsal wrist swelling. Range of motion was primarily limited in wrist extension. Active extension to 25 degrees; passive extension to 35 degree. Significant tenderness over TFCC and scapholunate junction. DRUJ was stable. Positive TFCC grind. Negative Watson's test. No scaphoid tenderness. Strength was 5/5 with wrist flexion and extension. Able to make a good fist, but strength with finger grip was decreased to 4/5. Subjective decreased sensation over C8 dermatome along his left 5th digit.

### **DIFFERENTIAL DIAGNOSIS:**

Scapholunate ligament tear 2. Fracture 3. TFCC tear 4. Osteonecrosis of carpal bone

### **TEST/RESULTS:**

**Left wrist xray:** volume loss, sclerosis, and fragmentation of the lunate bone likely secondary to chronic AVN. **MRI with contrast:** abnormal lunate, with central portion demonstrating extensive signal heterogeneity and fragmentation, accompanied by dorsal displacement of the dorsal component, and volar displacement of the volar portion consistent with sequelae of lunate osteonecrosis and/or prior lunate fracture. Mild stretching of the scapholunate ligament and small punctate micro tears, no well-defined defect or full thickness tear.

### **FINAL/WORKING DIAGNOSIS:**

Osteonecrosis of the lunate; i.e. Kienbock's Disease

### **TREATMENT/OUTCOMES:**

1. Immobilization with wrist splint to wear while working.
2. Corticosteroid injection around lunate bone in attempt to delay surgical treatment for stage IV Kienbock's disease.
3. Recommended surgery, however this has not been pursued.
4. Continues immobilization with work and is unable to return to boxing.