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Hand Injury in a Motorcycle Rider

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HISTORY: 39 y/o, right handed, male sustained a motorcycle accident 5 days before being seen in clinic. He states he lost control of his motorcycle and had to jump off of it before it crashed. He landed with outstretched hands striking the ground to prevent hitting his head against the road surface. When he got up he noted his left thumb was “out of place” but denies pain. He reports he reduced the abnormal appearance of the thumb himself and headed to the closest Emergency Department for initial evaluation and then referred to the Sports Medicine.

PHYSICAL EXAMINATION: Examination in the office demonstrated edema of the left thumb and tenar area, additionally there were skin abrasions over tenar area. No gross deformity. Thumb was abducted and radially rotated. There was minimal tenderness to palpation along the first metacarpal and proximal phalanx. Active and passive thumb range of motion of the metacarpophalangeal and interphalangeal joints were limited by edema and pain. Limited examination of the UCL was performed due to patient being unable to tolerate stress test. Passive clenched fist revealed no rotation of the rest of the fingers. Sensation and circulation were intact.

DIFFERENTIAL DIAGNOSIS: 1. UCL sprain 2. Radial collateral ligament sprain 2. Fracture of the first metacarpal 3. Phalangeal fracture

TEST AND RESULTS: Left hand frontal, oblique, and lateral radiographs: acute intra-articular fracture involving the ulnar base of the first metacarpal with minimal depression/displacement. No substantial soft tissue swelling or arthritic changes are observed. There is developmental fusion of the lunate and triquetrum.

FINAL/WORKING DIAGNOSIS: Bennett’s fracture (Left thumb intra-articular metacarpal base fracture)

TREATMENT AND OUTCOMES: 1. Thumb spica splint and immediate referral to orthopedic surgeon. 2. Attempted closed reduction with move to open reduction and internal fixation of left thumb Bennett's fracture with 3 pins. 3. Thumb splint for 10 days post op followed by immobilization with thumb spica cast for 6 weeks post operatively. 4. Pin removal 6 weeks post-op. 5. After pin removal the patient began course of physical therapy focusing on range of motion and strengthening of the patient's thumb.