

Short Article

“Thrower’s Fracture” - A Humeral Fracture

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Received: April 20, 2020; Accepted: April 29, 2020; Published: May 11, 2020

A 24-year-old right dominant male threw a softball extremely hard from outfield. A loud, cracking noise was accompanied by pain and inability to lift his right arm. Radiographs performed in ED revealed a severe displaced, comminuted fracture of the right humerus known as a “thrower’s fracture” (Figures 1, 2). The patient was a healthy, recreational athlete. A blood test, bone scan, and MRI all revealed negative results for bone pathology prior to surgical open reduction internal fixation (ORIF) of the right humerus (Figure 3).

Thrower’s fracture, somewhat rare, is an acute fracture of the mid-to-distal third of the humeral diaphysis during a forceful throwing motion, usually involving an excessive torque during the cocking and acceleration phase of motion [1, 2]. The internal rotation of the latissimus dorsi, subscapularis, and pectoralis major all contribute to the strong internal rotation force. During the cocking and throwing phase, a torsional force is applied to the humeral insertion of these muscles while the distal humerus is external rotation, causing a spiral type fracture. Thrower’s fracture is seen more in ages 20s-30s or recreational athletes, who often lack cortical hypertrophy seen in professional pitchers [1, 2] rarely is the radial nerve, involved, but if injured, usually heals without surgical involvement [1, 2].

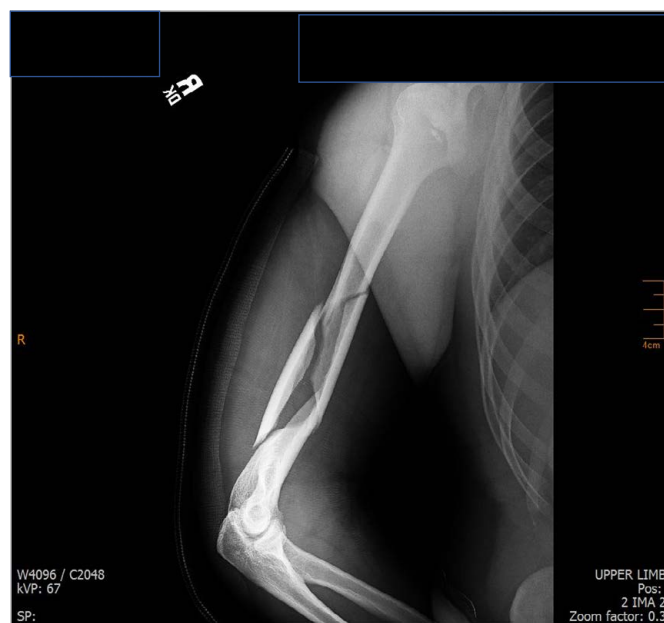


Figure 2: IR-AP of Right humerus.

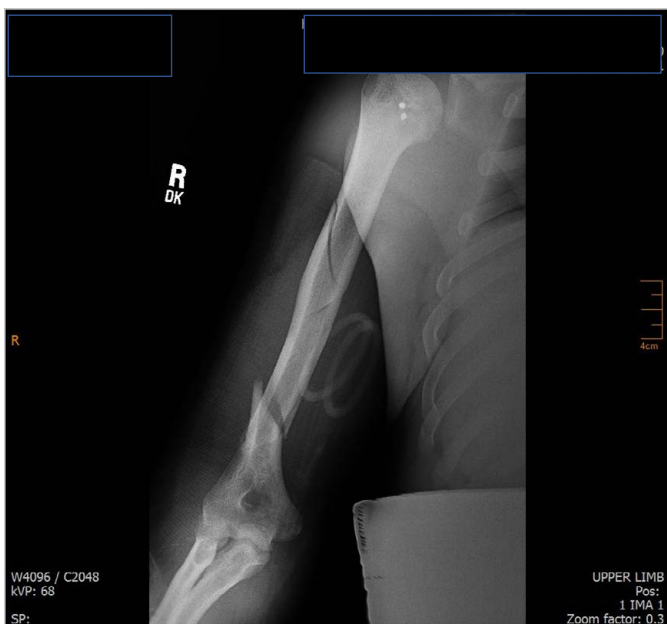


Figure 1: A-P Radiograph with comminuted fracture of right humerus.

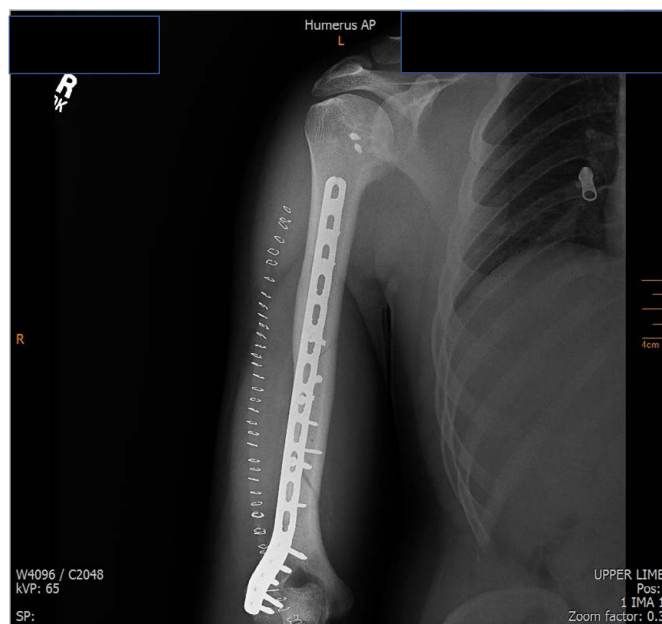


Figure 3: Post-surgical A-P radiograph.a

No post-op complications or radial nerve involvement were noted. A sling was worn for 2 weeks and ROM began at 4 weeks. He resumed light duty work at 2 months. Full ROM, less 3° extension was obtained. At 3 months post-surgery, he resumed gym workouts, but no recreational softball.

References

1. Colapinto MN, Schemitsch EH, Wu L (2006) Ball-thrower's fracture of the humerus. *Canadian Med Assoc J* 175: 33.
2. Miller A, Dodson CC, Ilyas AM (2014) Thrower's fracture of the humerus. *Orthop Clin North Am* 45: 565-569.

Citation:

Marsha Rutland (2020) "Thrower's Fracture"- A Humeral Fracture. *Integr J Orthop Traumatol* Volume 3(1): 1-2.