

A nightstick fracture is an isolated fracture of the ulna associated with a direct blow. Nightstick fracture is a descriptive colloquialism based on mechanism of injury

Defined as an isolated midshaft ulnar fracture, usually as a result of the forearm being held in protection across the face. It can also occur with excessive supination or pronation.

Here's the guy who is going to give you a nightstick fracture!



When you defend yourself from an attacker wielding a stick (club, baseball bat, crowbar, truncheon, knobkerry etc) you tend to protect your head by bringing up an arm(s) with your thumb pointing towards you (radial aspect) and your ulna presented to block the oncoming bar. This is the mechanism of injury for nightstick fracture



unstable fracture:

- displaced > 50% or > 10-15 deg angulation;
- angulation or displacement towards the interosseous membrane is poorly tolerated;
- periosteum and **interosseous membrane** disrupted;
- associated injuries: radial head frx or dislocation (see **Monteggia frx**)

- non operative treatment:

- indicated for fractures in the distal 2/3 of the forearm with less than 10-15 deg angulation and more than 50% to 75% fracture opposition;
- well fitted forearm cast or brace which does not interfere with wrist or elbow motion;
- expect 50% reduction of forearm pronation or supination while in the brace;
- references:

Forearm fractures more commonly occur in men than women, owing to a higher incidence in men of participation in contact sports, altercations, falls from height, and motor vehicle collisions. Ulna shaft fractures may occur from direct trauma along its subcutaneous border, classically described as a "nightstick fracture" as a victim attempts to protect the head from assault.

Anatomy

The ulna is a relatively straight bone that serves as an axis around which the laterally bowed radius rotates in pronation and supination. Since the ulna and radius form a ring connected by the interosseous membrane and ligaments, a fracture that shortens the ulna may result in a fracture or a dislocation of the radius at the proximal or distal radioulnar joint.

Presentation

Patients with a nightstick fracture typically present with pain, swelling, focal tenderness, and abrasions overlying the site of trauma. Patients with Monteggia fractures present with elbow swelling, deformity, crepitus, and painful elbow range of motion, especially pronation and supination. Since radial or posterior interosseous nerve injury is relatively common, especially with type II Bado fractures, a careful neurovascular examination is paramount.

Complications

Although uncommon, persistent radial head instability can occur following anatomic reduction of the ulna. If the radial head redislocates in the first 6 weeks post-operatively, the quality of ulna reduction must be critiqued. If the reduction is nonanatomic, repeat reduction and fixation with an open reduction of the radial

head may be done. Dislocation of the radial head beyond 6 weeks postoperatively is best managed by radial head excision. Nerve injury is also common with ulnar shaft fractures. They are most commonly seen with Bado Type II and III injuries, and the radial, median, posterior interosseous, or anterior interosseous nerve can be involved. Nerve injury may also occur from excessively forceful reduction maneuvers or during open reduction from errant retractor placement. If the nerve palsy persists after 3 months of observation, surgical exploration is indicated.

. Ulna shaft fracture. OrthopaedicsOne Articles. In: OrthopaedicsOne - The Orthopaedic Knowledge Network. Created Mar 30, 2008 13:06. Last modified Aug 10, 2009 08:56 ver.4. Retrieved 2015-06-15, from