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Ideal Treatment Procedure for Olecranon Fractures

Haomin Yang*

Department of Orthopedics, Capital Medical University, Beijing, China

Opinion Article

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***For Correspondence:**
Dr. Haomin Yang, Department of Orthopedics, Capital Medical University, Beijing, China
E-mail: yang_h@gmail.com

DESCRIPTION

Olecranon fractures are the fractures which typically result in affecting the bony portion of the elbow. This fracture may be a simple nondisplaced break or a more complicated fracture with elbow joint dislocation. Olecranon fractures can be difficult to treat because of the movements needed at the elbow. The olecranon does not receive much protection from muscles or other soft tissues because it is located right underneath the skin of the elbow.

The depth of the injury determines the course of treatment for an olecranon fracture. Simple fractures may be treated by splinting the affected area while it heals. However, in the majority of olecranon fractures, the injury causes the bone fragments to migrate out of position. Surgery is necessary for these fractures in order to regain the elbow's normal morphology and range of motion.

After a direct impact or fall, those with olecranon fractures have excruciating elbow discomfort. A common symptom of the elbow's inability to straighten is swelling above the bone location. Due to the proximity of the olecranon to the ulnar nerve, the damage and swelling may produce numbness and tingling at the fourth and fifth fingers. Examination will also bring out a palpable deficiency at the location of the fracture.

To examine an olecranon fracture, a meticulous skin exam is required to confirm there is no open fracture. Then a full neurological assessment of the upper limb should be documented. To look into the likelihood of an olecranon fracture, X-ray views of the elbow are routinely taken from the front and side. Determine the fracture pattern, level of displacement, level of comminution, and level of articular involvement using a true lateral x-ray.

Immobilization with a posterior splint may be sufficient for fractures that have no displacement. After three weeks of immobilization at 45^{o} to 90^{o} of flexion, limited flexion exercises can be performed on the elbows.

The most popular internal fixation method for non-comminuted olecranon fractures is tension band fixation. It is typically only used for coronoid-proximal non-comminuted fractures. Kirschner wire (K-wires), which transforms tensile forces into compressive forces, is used in this method. Simple transverse or oblique fractures can be treated with a single intramedullary screw. All proximal ulna fracture types, including Monteggia fractures and comminuted fractures, can be treated with plates.

Nonsurgical treatment

During the healing phase, the elbow is held in place by a splint or sling. Regular visits back to the clinic for X-rays will be required as the doctor closely monitors the healing of the fracture. After a few weeks, with the help of a physical therapist, might be permitted to begin slowly moving the elbow if the fracture is not displaced (out of place). For a few weeks, weight lifting and bearing will not be permitted. Due to the prolonged splinting period, the elbow may become extremely stiff and require more therapy to restore motion when the cast is removed. Nonsurgical treatment is therefore infrequently advised.

Surgical treatment

Surgery is typically required if the fracture is dislocated or open (the bone is visible through the skin). Surgery is frequently carried out through a cut over the back of the elbow, which provides complete access to the fractures. After that, the pieces are joined together and secured using various methods, such as plates and screws, screws alone, or pins and wires. Early motion starts right away after surgery and is typically supported by occupational or physical therapy.