Coronal shear articular fractures of the distal humerus are rare and often have a complex injury pattern. Plain radiographs often do not accurately demonstrate the degree of bony injury, so a CT scan with a 3D reconstruction can be helpful to clearly delineate the fracture pattern.

Fixing these fractures is often technically difficult because:
- The fracture is usually comminuted resulting in limited bone available for fixation
- Obtaining exposure can be difficult because of the regional anatomy of the elbow

### Treatment Approaches for Coronal Plane Articular Shear Fractures of the Distal Humerus

Plain radiographs often do not accurately demonstrate the degree of bony injury, so a CT scan with a 3D reconstruction can be helpful to clearly delineate the fracture pattern.

- **Treatment Approaches for Coronal Plane Articular Shear Fractures of the Distal Humerus**

  - **Type A: Absent**
    - Better outcomes with fewer complications
  
  - **Type B: Present**
    - Plate fixation usually required
    - Poorer outcomes

### Treatment Options

- **Open reduction and internal fixation (ORIF)—treatment of choice**
- **Total elbow arthroplasty for highly comminuted fractures**
- **Fragment excision for capitellum-only fractures with an intact MCL**
- **Arthroscopic-assisted reduction and fixation**

### Surgical Approaches

- **Open reduction and internal fixation (ORIF)—treatment of choice**
- **Total elbow arthroplasty for highly comminuted fractures**
- **Fragment excision for capitellum-only fractures with an intact MCL**
- **Arthroscopic-assisted reduction and fixation**

### Complications

- **Re-operation, required for:**
  - Elbow contracture
  - Symptomatic hardware
  - Post-traumatic arthritis
  - Heterotopic ossification

- **Nerve injury**
- **Infection**
- **Non-union**

### For Better Treatment Outcomes

- **Lesser fragmentation of the articular surface**
- **Absence of posterior comminution**

### Preoperative Radiological Assessment

Preoperative radiological assessment of fracture morphology, degree of trochlear involvement, and/or posterior comminution can aid the selection of the best surgical approach for the effective treatment of coronal shear fractures.