Acute Distal Radius Fracture: PAF Analysis

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PAF stands for Patient, Accident and Fracture. This new system of analysis of acute distal radius fractures was built because there is no agreement so far for any classification of these injuries. AAOS and Cochrane recent reports found no evidence for any treatment recommendations despite the huge amount of literature devoted to this topic. This may be due to heterogeneity of many series in terms of patient distribution.

The PAF system provides a chart analysis which is self explanatory; patient's characteristics is the first item, taking into account not only age and sex, but more importantly his or her functional needs from a personal interview. Accident's

energy is a second item which could be a clue to look for hidden associated injuries. Fracture is the third component. The AO classification system is used along with a number of factors which have proven to be important in terms of prognosis.

The PAF system may have an impact on epidemiologic knowledge, clinical research (more homogeneous groups of patients) and teaching (checklist for residents and fellows).

Those surgeons who are interested to participate in a multicenter international database may send their filled forms (►Form 1) to guillaume.herzberg@chu-lyon.fr for inclusion.

Acute Distal Radius Fracture: P.A.F. Analysis

Country _____ State/Province _____ Date _____
 Institution Initials _____ Surgeon Initials _____ Patient Initials _____

P	Age _____ Sex ☐ M ☐ F	Additional Comments:
	General Health: ☐ 1 Dependent ☐ 2 Diseases ☐ 3 Normal	
	Functional Needs: ☐ 1 Minimum ☐ 2 Intermed ☐ 3 Maximum	
A	Accident Energy: ☐ 1 Low ☐ 2 Medium ☐ 3 High ☐ Polytrauma ☐ Poly-Injured	
F	RADIUS ☐ Open Fracture ☐ Carpal Tunnel Sd	
	AO Classification: Complete A ☐ C ☐ ; Partial B ☐	
	PA X-Ray: - Radial Inclination: ☐ 1 ☐ 2 ☐ 3 ☐ 4 - Ulnar Variance: ☐ 1 ☐ 2 ☐ 3 ☐ Diaphyseal Extension ☐ Medial Translation of Radius Diaphysis	
	Lat. X-Ray: ☐ Dorsal ☐ Volar Tilt // ☐ 1 ☐ 2 ☐ 3 ☐ Dorsal ☐ Volar Translation // ☐ 1 ☐ 2 ☐ 3 ☐ Dorsal ☐ Volar ☐ Circumferential Comminution ☐ Fracture Line Distal to Watershed Line ☐ Sagittal Articular Widening	
	PA & X-Ray (+/- Traction Views): Intra-articular Radio-carpal Step-Off: ☐ 1 ☐ 2 ☐ 3 Intra-articular Radio-carpal Gap: ☐ 1 ☐ 2 ☐ 3	
	ULNA ☐ Neck or Distal 1/4 Fracture ☐ Head Fracture ☐ Ulnar Styloid Base Displaced Fracture ☐ Possible TFCC Rupture ☐ DRUJ Subluxation ☐ Dislocation	
	CARPUS ☐ Scaphoid fracture ☐ Possible SL Dissociation (SL Diastasis) ☐ Possible LT Dissociation (LT Step Off) ☐ Volar ☐ Dorsal Radio-carpal Subluxation	

(Gray Zones = Acceptable Displacement)

- Radial Inclination
- Ulnar Variance

- Dorsal / Palmar Tilt

- Intra-articular Step-Off / Gap (mm)

- Dorsal / Palmar Translation

CT Scan
 Radio-Carpal Step-Off ☐ 1 ☐ 2 ☐ 3
 Gap ☐ 1 ☐ 2 ☐ 3
 Sigmoid Notch Step-Off ☐ 1 ☐ 2 ☐ 3
 Gap ☐ 1 ☐ 2 ☐ 3
 - Fragment Number (Medoff): ____
☐ Localized Impaction
☐ Irreparable Articular Surface

Arthroscopy
☐ Loose Bodies
☐ TFCC Rupture
☐ SL Dissociation
☐ LT Dissociation

TREATMENT

Form 1 PAF Analysis Form.

Source: Herzberg G, Izem Y, Al Saati M, Plotard F. PAF analysis of acute distal radius fractures in adults. Preliminary results. *Chirurgie de la main* 2010;29:231–235.