



# Evolution of Treatment in Fractures of the Distal End of the Radius in Elderly

Giancarlo Caruso\*

Department of Upper Limb Hand Surgery, Palagi Hospital, Florence, Italy

## Editorial

The fractures of distal radius are the most common fractures of the upper extremity. These fractures are experienced by all ages and demonstrate a bimodal distribution, with peak ages of 6 to 10 and 60 to 69 years [1-5]. The oldest description regarding the management of distal radius fractures goes from Edwin Smith Papyrus (5000 years ago in ancient Egypt) to Hippocrates, the father of Western medicine, and famous Abraham Colles [4-10]. After 5000 yrs non operative treatment is actually still the most used; this treatment is applied to undisplaced fractures, stable and reducible fractures but is also applied to unstable fractures in low demand patients [10-16]. In the older and osteoporotic patients, simple falls with outstretched hand can cause distal radius fracture. Surgical treatment is indicated for displaced and unstable fractures [17,18]. The common complications that are associated with operative treatment of distal radius fractures can be technique related or not: tendon injuries, inadequate reduction or collapse, intra-articular placement of screws, nerve irritations or injuries, complex regional pain syndrome, carpal tunnel syndrome or other compression neuropathies, compartment syndrome, infections [19-25]. Late complications can be malunion, non union, carpal instability and ulno-carpal impingement, arthritis [26-30]. Distal radius fracture management in elderly patients remains without consensus in regard to the appropriate treatment. Conservative treatment is indicated in stable fractures [31]. In unstable fractures treatment methods includes, pins and plaster, external fixation, K-wires, and open reduction and internal fixation with plates. In elderly patients with decreased mobility and low demands, functional outcomes are good despite the presence of deformity [32]. These patients achieved satisfactory functional results because of their low functional demands, not because they are older. External fixation who had great diffusion in years between 1986 and 1999, in our opinion, can continue to have a role in the management of distal radius fractures in the elderly [33]. The older but otherwise healthy population continues to grow and many of these patients request operative treatment in an attempt to maintain a high level of wrist functionality. These patients with higher demands may benefit from fracture open reduction and internal fixation with locking volar plates, with fixed-angle screws. These plates, introduced in the english literature by Orbay and Fernandez in 2002, may be particularly indicated in osteoporosis for their decreased incidence of adverse effects. In Open Reduction and Internal Fixation (ORIF) with Locking Plate Systems (LPS) more than in External Fixators most of the complications are caused by "errors in surgical technique". In our experience, as well as in other Authors experience, evolution of distal radial fractures shows that these can and should be treated according to the same principles that apply to other fractures extending to the joints.

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### \*Correspondence:

Giancarlo Caruso, Department of Upper Limb Hand Surgery, Palagi Hospital, Florence, Italy,  
E-mail: giancarlo.caruso@uslcentro.toscana.it

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