

# **Functional outcome analysis of fixation of distal radius fractures using 'Five pin technique'**

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## **Background**

The debate over the optimal treatment for distal radius fractures only sparks more questions than answers with the options ranging from conventional cast immobilisation to column specific plating. The five pin technique a modification of the existing closed reduction and pinning methods combines the advantages of casting and the more invasive plating.

## **Aim**

To assess the functional outcome of fixation of distal radius fractures using the five pin technique in twenty patients managed in our Institute over a period of 1 year from July 2015 to July 2016.

## **Materials and methods**

Twenty patients with fractures of distal radius and subsequently underwent five pin fixation were studied. Post operatively the patients were assessed based on the functional and the radiological outcome . The follow up was based on the quick DASH scoring system to assess the functional outcome and the Sarmiento's modification of the Lindstrom criteria to assess the radiological outcome . The relationship between both outcomes were studied.

## **Results**

The DASH scoring were found to be excellent or good in 14 out of 20 patients. The average DASH being 12.68 which is comparable to volar plating and better than conventional K-wire fixation. Minor complications were superficial pin site infections (30%), extensor tendon tethering (10%) and fracture collapse (22%) which led to a poor outcome in some cases. The reduction

of dorsal tilt correlated with the DASH score 80% of the time, the restoration of radial length, and the radial inclination 65% and 60% of the time.

## **Conclusion**

In conclusion, the five pin technique is a versatile tool which provides functional outcomes better than conventional k-wire fixation and comparable to volar plating as seen in our study.