

## CLINICAL IMAGE IN MEDICAL PRACTICE

### MADELUNG DEFORMITY

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A teenage girl presented with progressive bilateral wrist joint deformity and bowing of distal end of forearm without significant functional impairment and systemic complaints. None of her family member is affected by this condition. She has a normal birth and development history. Local examination of her right distal forearm revealed prominence of the ulnar end with dorsal displacement and prominence of the radial end with bowing of lower 2/3<sup>rd</sup> of it with lesser extent in left side. There was absence of redness, muscle wasting. The swellings seemed to be continuation of the distal end of ulna and radius on respective sides. Extension and radial deviation of right wrist joint was restricted and in left side flexion was also affected but all movements were painless.



Plain anterior-posterior, lateral, oblique, and closed-fist anterior-posterior radiographs revealed a Madelung deformity with a widened distal radioulnar joint<sup>1</sup>. The findings of radiological examination of wrist and forearm revealed <sup>1</sup> a). dorsal and radial bowing of the radius. b).exaggerated palmar (up to 35°) and ulnar tilt (up to 60°) of the radiocarpal

articulation. c).failure of ossification of the ulnar side of the distal radial epiphysis. d).exaggerated radial inclination. e).decreased carpal angle below 118°; normal from 118° to 139°.f) carpal subluxation in a palmar and ulnar direction. g)lunate is gradually forced to the apex of the V-shaped radioulnaocarpal joint. h)“V-shaped” proximal carpal row with herniated proximal carpal row.i) dorsal subluxation of the distal ulnar and positive ulnar variance..j) wedging of the carpus between the radius and ulna. She was diagnosed as a case of Madelung Deformity.



#### References:

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