Atypical Presentation of Madelung Deformity: A Case Report

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Setting

Tertiary care teaching hospital

Case Description

A 47-year-old right-hand dominant male presents to the clinic with left 3rd digit pain along with left wrist pain for about one month. The patient denies any trauma or accidents. The patient states he noticed locking of the 3rd digit with difficulty to make a close fist. The patient works as a construction worker and reports having trouble using tools with his left hand. Radiographic imaging of bilateral wrists revealed a left Madelung wrist deformity. The patient was treated with local therapeutic modalities, occupational therapy, and a steroidal injection to the 3rd digit trigger finger. The patient was safely able to return to work and continue with his activities of daily living with a wrist orthotic brace.

X-Ray of left wrist depicting a madelung deformity

Case Diagnosis

Madelung deformity is a rare congenital abnormality of the wrist. During development, there is dyschondrosis of the distal radial physis leading to palmar and ulnar wrist subluxation. It is commonly seen in female gymnasts during their adolescent years. The deformity will often present bilaterally.

Discussion

Madelung deformity can result in functional impairment because of wrist pain and limited forearm range of motion. This presentation is unique in that the patient was a non-athlete male, diagnosed in his late 40s, and he presented with a unilateral deformity. Despite difficulties at his job the patient was still able to use his left hand functionally with the aid of a brace and will not require reconstructive surgery.

Conclusion

Although uncommon, Madelung deformity is usually repaired operatively in professional athletes with persistent pain and functional limitation. This nonconventional case illustrates an example of successful conservative management in which the patient had a decrease in pain, improvement in range of motion and grip strength, and most importantly, resumption in activities of daily living.

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