

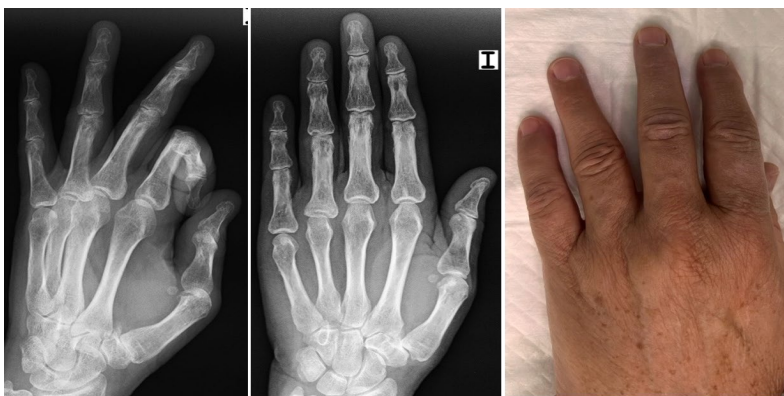
Widening indications of intramedullary cannulated headless screws in the treatment of metacarpal and phalange malunions

Introduction:

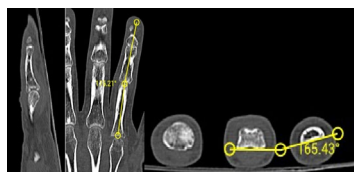
Intramedullary cannulated headless screws (ICHS) have been proven to be an effective and less aggressive treatment method for selected fractures and malunions of metacarpals and phalanges compared to previous methods of fixation. We present a series of 2 cases to show that the indications of this technique can be broadened to some selected cases.

Case 1:

61-year-old female that presented a 13-month long fracture at the base of the medial phalanx of the 4th left finger. She presented pain, inability to make a fist and grasp objects.



A CT scan was performed to better determine the characteristics of the deformity and for surgery planning.



An extraarticular diaphyseal osteotomy was performed, correcting the angular and rotational deformities. Osteosynthesis was performed with a retrograde cannulated headless intramedullary screw (2.2 x 22mm).



Case 2:

12-year-old female that presented a 6-month long unicondyle fracture at the proximal phalanx of the 5th finger. She presented an angular deformity with ulnar deviation and inability to make a fist. An extraarticular metaphyseal osteotomy was performed, correcting the angular and rotational deformities. Osteosynthesis was performed with a cannulated headless intramedullary screw.



Results and conclusions:

Both cases presented a satisfactory evolution, and patients were able to return to their academic and professional life in less than 2 months.

Intraarticular osteotomies through the original site of fracture are technically difficult and come with complications such as stiffness and inflammation. On the other side, the restoration of the articular surface does not guarantee the restoration of the full range of motion or prevent future arthrosis. This is why extraarticular techniques were described as a secure way of correcting angular and rotational deformities.

Compared to Kirschner wires and plates, the use of cannulated intramedullary screws has shown to be a less aggressive method of fixation, which furthermore allows early mobilization.

We ignore the extent to which this technique can correct angular and rotational deformities, although we believe 2-3 mm is reasonable.