

About a painful wrist after a forced dorsiflexion trauma

CLINICAL INTRODUCTION

A young adult without medical history was admitted a day following right wrist trauma. He fell from a height of three stairs with forced dorsiflexion of his wrist, and complained of severe pain and functional disability.

Clinical examination revealed a mildly swollen wrist with tenderness on dorsal palpation. Active and passive movements were impossible because of the pain. Anatomical snuffbox and scaphoid palpation was painless.

QUESTION

What is the diagnosis (figure 1)?

- A. Isolated scaphoid fracture
- B. Isolated capitate fracture
- C. Fenton's syndrome
- D. Wrist sprain

For the answer see page 413



Figure 1 Right wrist face X-ray.

IMAGE CHALLENGE

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From the question on page 385.

ANSWER: B

Radiography shows a capitate fracture (figure 2). Capitate fracture is very rare, and in most of the cases, it is associated with scaphoid fracture, 180° rotation of the capitate and perilunate dislocation (Fenton's syndrome¹). Isolated capitate fractures constitute only 0.3% of wrist fractures.²

In the case of a capitate fracture, a CT scan is required in order to eliminate an associated lesion. In this case, fracture was isolated.

Wrist trauma with significant symptomatology and suspect physical examination or radiography should be explored by CT scan and needs specialised advice. Without a negative scan, a wrist sprain cannot be confirmed.

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Figure 2 Right wrist face X-ray with marked capitate fracture.

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