

## QUESTIONS-RÉPONSES/QUESTIONS AND ANSWERS A CASE OF WRIST PAIN

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### THE CASE



FIGURE 1

*A 21-year-old man presented with wrist pain for one month duration. This started after he fell down onto an outstretched hand while playing football. Wrist X-rays were performed the day of trauma but did not show any abnormality. The pain is in the radial aspect ; it worsens by gripping or squeezing.*

*Because of his persistent symptoms he was seen by a family physician. The physical examination showed tenderness in the anatomic snuff-box at the base of the thumb. A repeat X-ray is shown in figure 1.*

The most likely diagnosis is :

- A. Tendinitis
- B. Rheumatoid arthritis
- C. Osteoarthritis
- D. Scaphoid fracture

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## DISCUSSION

The physician suspected a scaphoid fracture and asked for repeat X-rays. The patient had a fracture of the distal aspect of the scaphoid bone near its junction with the trapezoid (Figure 2).

Scaphoid fracture is a common injury encountered among young population and should not be missed after such a trauma. The physician who saw the patient first should have considered a scaphoid fracture in his differential diagnosis and should have relied on his physical examination and not on radiograph findings ; early imaging often is unrevealing. The diagnosis should be retained in case of any of the following findings :

1. Tenderness in the “anatomic snuff-box” at the base of the thumb. This sign has a sensitivity of 90% and specificity of 40% [1].
2. Tenderness of the scaphoid tubercle. This is tested by extending the patient’s wrist with one hand and applying pressure to the tuberosity at the proximal wrist crease along the radial aspect with the opposite hand. This maneuver has a sensitivity of 87% and a specificity of 57% [1].

Tenderness with these two maneuvers makes a scaphoid fracture highly possible.

Once a scaphoid fracture is suspected based on the physical examination, it is reasonable to apply a short arm thumb spica and reevaluate the patient in two weeks. After two weeks of immobilization, the patient should be free of pain and a follow-up radiograph should be obtained. MRI or bone scintigraphy may be used initially or later on to confirm the diagnosis.

If a cast is not applied at the first visit the patient may develop several complications. Of these are non-union, delayed union, decreased grip strength, decreased range of motion, and osteoarthritis of the radio-carpal joint.

## REFERENCES

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FIGURE 2