

BILATERAL TRAUMATIC SCAPHOID FRACTURES: DIVERGENT APPROACH, CONGRUENT RESULT

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Introduction: Bilateral traumatic scaphoid fractures are rare, especially from road traffic accidents. In UK a prospective study showed only 3.3% of scaphoid fractures were caused by MVAs. Usually bilateral scaphoid fractures resulted from repetitive stress on wrists in sports. The subject of my case study is a 33-year-old gentleman who was presented to Emergency Department with bilateral wrist pain after felling forward on outstretched hand at a speed of 70kph while hit by a car from front. He has isolated anatomical snuffbox tenderness on both wrists upon examination but with full range of motion on the left wrist while limited on the right upon flexion and pronation. Bilateral scaphoid series were performed and minimally displaced fracture lines were seen on wrists of bilateral wrist X rays. Percutaneous screw fixation performed on both scaphoids with right via dorsal retrograde approach and left via volar antegrade approach, and patient was followed up with excellent Mayo Wrist score on both wrists and radiographic signs of full union achieved at 2 months post operatively, with him returning to work in 3 months.

Discussion: Scaphoid is the most documented carpal bone fractures, accounting for 15 percent of wrist injuries, with 80 percent involving the waist. It is usually fractured in forces of hyperextension and radial deviation. Radiographs are usually not sensitive nor specific. CT scans are usually required for determining displacement and stability, while MRI is most sensitive in suspicious and early cases. Percutaneous screw fixation irregardless of volar or dorsal approaches is known to have a high union rate, good functional outcome yet only minimal complications.

Conclusion: Missing scaphoid fractures will result in carpal instability, non union and avascular necrosis. Contrarily, timely detection and management will usually provide good union rates of more than 90% with surgical intervention. Volar or dorsal percutaneous approaches yield similar outcomes.