The patient was a 21-year-old male cadet at a military academy who was evaluated by a physical therapist in a direct-access capacity for a chief complaint of right wrist and hand pain. The symptoms began 5 days earlier following a punching injury, after which the patient reported immediate pain and swelling in the right wrist and hand. Visual observation revealed mild edema at the dorsum of the right wrist and hand. Active flexion range of motion for the second and third digits of the right hand was limited due to pain, and there was exquisite tenderness to palpation dorsally over the base of the second and third metacarpals.

Given that symptom onset was associated with trauma and there was edema, limited range of motion, and tenderness with palpation over the base of the second and third metacarpals, the physical therapist ordered radiographs of the right hand (posterior-to-anterior, lateral, and oblique views) to assess for a fracture. The radiographs demonstrated nondisplaced, nonangulated transverse fractures through the bases of the second and third metacarpals (FIGURES 1 and 2).

The patient was referred to an orthopaedic surgeon, who recommended nonoperative management. Following 4 weeks of immobilization in a short-arm cast, fluoroscopic evaluation by the orthopaedic surgeon demonstrated evidence of fracture healing. After referral to a physical therapist for supervised intervention, the patient returned to full, unrestricted activity at 7 weeks following injury. 

Fractures Through the Base of the Second and Third Metacarpals

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References

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