

Metacarpal stress fracture in an accountant

A case report

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A 25-year-old, right-handed, male accountant was examined for pain, especially when writing, in his right hand. He had no history of acute injury. He usually wrote 2–3 hours a day, but had 3 weeks earlier increased it to 8–9 hours.

The palmar-radial side of the second metacarpal neck was tender. There was no soft tissue swelling or erythema. Sensibility, circulation and range of movement of all joints were normal. Radiographs were normal, as also was blood chemistry. Bone scintigraphy revealed a localized site of increased activity in the neck and head of the second metacarpal bone.

The patient was advised to refrain from writing for 4 weeks. At 2 months follow-up, he could write without pain. Radiographs were still normal. A bone scan at 5 months was normal.

Discussion

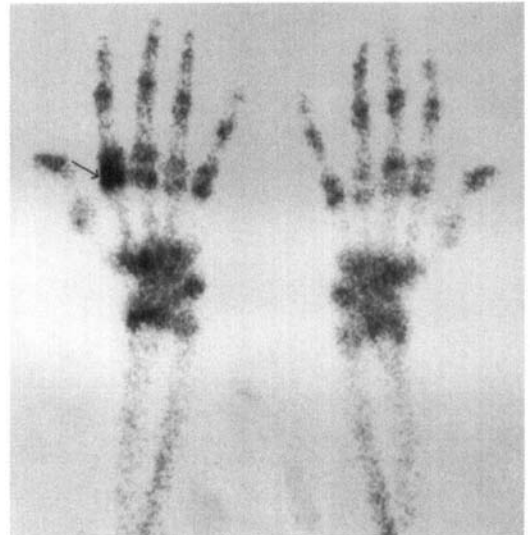
A review of the literature revealed 5 cases of metacarpal stress fractures. Among 142 cases of sports-related stress fractures reported by Orava et al. (1978), only 2 involved the metacarpals. Murakami (1988) reported a case of stress fracture of the metacarpal in an adolescent tennis player.

Occupational metacarpal stress fractures are rare. Wilson and Katz (1969) reported a third metacarpal fracture in a soldier who tossed hand grenades. Howard and Conrad (1992) reported a second metacarpal bone fracture in a girl who worked in an ice cream parlor.

In our patient, radiographic examinations were normal. Even after clinical and scintigraphic confirmation of stress fractures, radiographs may remain negative during healing (Zwas et al. 1987).

References

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Dorsal projection of the hand obtained 3 hours after the intravenous administration of 20 mCi Tc-99m-MDP showing increased uptake in the neck and head of the right second metacarpal (arrow).