Is buddy taping as effective as plaster immobilization for adults with an uncomplicated neck of fifth metacarpal fracture? A randomized controlled trial


SUMMARY:

- Boxer’s fractures account for 25% of hand fractures. Uncomplicated Boxer’s fractures (closed, minimally displaced, with angulation <60-70°) are generally managed nonoperatively. In the U.S., the usual practice is to place patients in an ulnar gutter splint initially, followed by a cast for 6 weeks, thus resulting in potential work loss and functional impairment. Other evaluated treatments include simple splints, wrapping the hand or buddy taping; these methods have gained more traction outside of the U.S.

- This is an open-label RCT comparing plaster casts with buddy taping in terms of functional outcomes for Boxer’s fractures, as measured by the quickDASH scores at 12 weeks (with the shortened Disabilities of the Arm Shoulder and Hand questionnaire, a validated self-reported tool). The higher the score, the greater the disability. Other outcomes were the time to return to work and pain scores.

- Adult patients were enrolled with Boxer’s fractures. The exclusions were gross rotational deformity, comminuted fracture, intra-articular fracture, tendon injury, angulation >70°, injury, and >1 week off work. Buddy taping entailed taping the little and ring fingers together with 2 straps of tape and gauze between them. The plaster-cast group received a simple cast. Clinicians were instructed that reduction of the angulation was not necessary.

- A total of 126 people were randomized, and 26 were lost to follow-up (the number was the same in both groups); 5 crossed over to plaster, and 7 crossed over to buddy tape. The quickDASH scores were 0 in each group at 12 weeks. Return to work was slightly faster in the buddy-tape group: subjects missed an average of 0 days of work in the buddy-tape group compared with 2 days of work for the plaster-cast group. Pain scores and patient satisfaction were excellent and were equal in both groups. In the buddy-tape group, 3 people underwent operative management: 1 because of a second injury (although the plaster cast would have protected the patient) and 2 because the orthopedic surgeon felt the injury was intra-articular, not because it became too angulated (thus, the injury was probably unrelated to the taping).

PMID: 30853124

EDITOR’S COMMENTARY: This well-conducted but small RCT adds to the body of evidence showing that plaster splinting and casting are no more effective than other less restrictive immobilizing techniques for uncomplicated Boxer’s fractures. The challenge will be getting orthopedists who see these patients in follow-up to accept this management strategy.