

Broken Arm Treatment with pulsed electromagnetic field therapy

Ice and pulsed electromagnetic field therapy to reduce pain and swelling after distal radius fractures / broken arm

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OBJECTIVE: To examine the relative effectiveness of ice therapy and/or pulsed electromagnetic field in reducing pain and swelling after the immobilization period following a distal radius fracture. **METHODS:** A total of 83 subjects were randomly allocated to receive 30 minutes of either ice plus pulsed electromagnetic field (group A); ice plus sham pulsed electromagnetic field (group B); pulsed electromagnetic field alone (group C), or sham pulsed electromagnetic field treatment for 5 consecutive days (group D). All subjects received a standard home exercise programme. A visual analogue scale was used for recording pain; volumetric displacement for measuring the swelling of the forearm; and a hand-held goniometer for measuring the range of wrist motions before treatment on days 1, 3 and 5. **RESULTS:** At day 5, a significantly greater cumulative reduction in the visual analogue scores as well as ulnar deviation range of motion was found in group A than the other 3 groups. For volumetric measurement and pronation, participants in group A performed better than subjects in group D but not those in group B. **CONCLUSION:** The addition of pulsed electromagnetic field to ice therapy produces better overall treatment outcomes than ice alone, or pulsed electromagnetic field alone in pain reduction and range of joint motion in ulnar deviation and flexion for a distal radius fracture after an immobilization period of 6 weeks.

1: Neurorehabil Neural Repair. 2004 Mar;18(1):42-6