Non-invasive interactive neurostimulation in the post-operative recovery of patients with a trochanteric fracture of the femur

A RANDOMISED, CONTROLLED TRIAL

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We undertook a trial on 60 patients with AO 31A2 fractures of the hip who were randomised after stabilisation of the fracture into two equal groups, one of which received post-operative treatment using a non-invasive interactive neurostimulation device and the other with a sham device. All other aspects of their rehabilitation were the same. The treatment was continued for ten days after operation.

Outcome measurements included the use of a visual analogue scale for pain, the brief pain inventory and Ketorolac for post-operative control of pain, and an overall assessment of outcome by the surgeon. There were significantly better results for the patients receiving treatment by active electrical stimulation (repeated measures analysis of variance, p < 0.001). The findings of this pilot trial justify a larger study to determine if these results are more generally applicable.