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Benign paroxysmal positional vertigo in acute traumatic brain injury patients data from a multi-centre prospective randomised feasibility study

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Background and aims

Benign paroxysmal positional vertigo (BPPV) is the most common peripheral vestibular diagnosis in acute TBI. However, there is a paucity of acute prospective data regarding the most effective treatment, optimal time to treat and recurrence. Given such uncertainties we aimed to investigate the feasibility of assessing and treating BPPV in acute TBI.

Methods

Participants were recruited from two major trauma centres in London, UK. Inclusion criteria included those over the age of 18, with a closed head injury (as noted by CT scan) and were an inpatient on a major trauma or outlying ward. Importantly, subjective dizziness was not a prerequisite for inclusion. Following consent, patients were assessed for BPPV by trained ward therapists. Those with BPPV were randomly allocated to one of three interventions (repositioning manoeuvres, Brandt Daroff exercises or advice) and were followed up at two time intervals.

Results

95 patients have consented to take part in the study. Of those, BPPV was diagnosed in twenty eight (mean age 50 years; 20 males, 8 females). 62% of patients had a moderate-severe head injury. 14 (50%) had unilateral BPPV, of which 71% had right sided posterior canal BPPV. 12 patients (43%) had bilateral posterior canal BPPV.

Conclusions

This is the first data from a prospective study investigating BPPV in acute TBI. Initial data suggests just under a third of patients with acute TBI have BPPV. Interestingly, a large number of patients had bilateral BPPV. Data from this study will inform a more definitive randomised controlled trial.