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## Post-stroke balance training: role of force platform with visual feedback technique.

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### Author information

### Abstract

**OBJECTIVE:** To evaluate the role of balance training on Force Platform with Visual Feedback technique (FPVF) in improving balance and functional outcome in chronic stroke survivors.

**DESIGN:** Prospective, repeated measure study.

**SETTINGS:** Neurological rehabilitation department of a tertiary research center.

**PARTICIPANTS:** First episode of supra-tentorial stroke with more than 3 months duration, ability to follow 3 step commands, and impaired balance and gait with ability to walk independently or with one person support (Functional Ambulation Category II-IV).

**INTERVENTIONS:** Training on "Balance Master" for 20 sessions (20 min/day, 5 days/week for 4 weeks).

**OUTCOME MEASURES:** Balance on Berg Balance Scale, Balance Index and Limits of Stability scores, walking ability on over ground walking speed, and functional ability on Barthel Index. Evaluation was done pre- and post-training and at 3 months follow-up. Statistical analysis was done by Paired t test on SPSS 13.0.

**RESULTS:** Forty five patients (M:W: 36:9, age range: 22-65 years, mean post-stroke duration of 16.51+/-15.14 months) were included. Forty (89.9%) subjects completed training and all primary and secondary outcome measures showed statistically significant improvement ( $p < 0.000$ ) at the end of training. Thirty-four (75.6%) subjects were followed up and statistically significant improvement ( $p < 0.000$ ) was maintained for all outcome measures.

**CONCLUSION:** Balance training by FPVF technique significantly improves balance and functional outcome even in chronic phase after stroke. Large scale, controlled studies are recommended.

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