Limits of stability in people after stroke and the relation with balance, gait and mobility

A study with the BioRescue force-plate

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Content

• Introduction
  – Stability limits

• Study
  – Hypothesis
  – Stability limits with the BioRescue

• BioRescue

• BioVal
INTRODUCTION
• Inpatients rehabilitation wards
  UZ Leuven Campus Pellenberg
• Stroke patients
• Study is ongoing
• 33 subjects included (aim: 40)
• No results yet…
• New equipment for balance training
  – Analysis
  – Training
  – Modern

➔ BioRescue
• Stability limits
  – Measuring balance?
  – Predictor for falls?
STABILITY LIMITS
Stability limits
Stability limits details

• Total surface
  – Surface North, South, West, East
  – Surface NW, NE, SW, SE

• Distance of movement
  – 8 directions

• Length of movement
  – 8 directions
Limits of stability in people after stroke and the relation with balance, gait and mobility

- Limits of stability
  - BioRescue force-plate
- Berg Balance Scale
- 10m Walking Test
- Dynamic Gait Index
- Community Balance & Mobility Scale
- Falls Efficacy Scale
Movements diagonally are more important for balance than M-L or A-P movements.
• Earlier studies with force-plate and stroke patients
  – Training will improve balance on force-plate but not in BBS or Gait
• M-L, A-P movements

Barclay-Goddard RE, et al, Cochrane Database of Systematic Reviews, 2009
Stability limits with the BioRescue
Lean in the direction of the arrow
Evolution of the analysis
BIORESCUE
BioRescue seated
Localiser : Lisbonne

Distance : 11004km
Pays : Portugal

94°E, 4°S
THANK YOU FOR YOUR ATTENTION