130

The Relationship Between Stroke-Related Cognitive Impairments and Robotic Proprioceptive Assessment

Caitlin Callaghan, Chris Johnson, Piyashi Biswas, Jill See, Dodakian, Vicky Chan, Po T .Wang, Steven C. Cramer, Zoran Nenadic, An H. Do, and David J. Reinkensmeyer
University of California, Irvine

UCI Samueli School of Engineering
University of California, Irvine

ICORR

- The interplay between proprioceptive and cognitive impairments following stroke is unclear.
- We robotically measured ankle proprioception in 37 people with stroke, and assessed Cognitive impairments via the MoCA assessment.
- People with lower MoCA scores had worse ankle proprioception.
- Visuospatial/Executive function (measured by MoCA drawing tasks) was a key factor in proprioceptive performance, even after controlling for neglect.
- Proprioception ability is interrelated with specific cognitive impairments that
  1) need to be considered in proprioceptive assessments and
  2) may lead to insights for hard-to-evaluate conditions like neglect.





