ABSTRACT 1 – SCILT TRIAL

The Walking Index for Spinal Cord Injury (WISCI) was developed to measure walking ability. This prospective, multicenter randomized controlled trial determined the WISCI’s responsiveness and validity in a clinical setting. One hundred and forty-six subjects with incomplete SCI from below C4 to T12 (ASIA A=39, B=13) and 6/34 motor incomplete subjects, but showed a progression of 15 levels on a 21-point scale. LEMS (50-item score) increased from 6.6 to 16.2. Although there were no significant differences between LT and CT, the outcome measure demonstrated improvement in each arm.

CONCLUSIONS

- The WISCI scale is a feasible outcome measure of walking function for clinical trials.

SUMMARY CONCLUSION

- The Clinical Trial (SCILT) demonstrates the WISCI’s response to change and the responsive clinical study confirms its validity.

- Considered together the WISCI scale is a feasible outcome measure of walking function for clinical trials.

ABSTRACT 2 – TJU STUDY

No progression in WISCI levels was observed in 46/52 motor complete (ASIA A=39, B=13) and 6/34 motor incomplete subjects. Progression of WISCI levels was monotonic in one direction for 27/34 subjects. Relapse of strength (LEMS) appeared to explain some variation in progression, but typically the subjects were advanced too aggressively. High tetraplegic subjects (3/100) would require scoring modification at the level no device, brace and assist of one, present in 3 subjects (5%), which is not represented in WISCI scale.

MONOTONIC (ONE DIRECTION) IMPROVEMENT IN WISCI LEVELS

- 27/34 subjects showed progression in walking/WISCI status, rehab discharge, and 1 year post injury to validate hierarchical ranking and progression of improvement of the WISCI.

RESULTS

- Progression of WISCI levels was monotonic (in one direction) for 27/34 subjects. Relapse of strength (LEMS) appeared to explain some variation in progression, but typically the subjects were advanced too aggressively. High tetraplegic subjects (3/100) would require scoring modification at the level no device, brace and assist of one, present in 3 subjects (5%), which is not represented in WISCI scale.

OBJECTIVE

- To demonstrate the validity of the WISCI scale in a clinical setting

METHOD

- Design: Prospective cohort

- Subjects: 86/100 eligible subjects (ASIA A=29, B=14, C=37, D=10) who enrolled into a 1 month of acute SCI, lower extremity motor scores (LEMS), WISCI levels, and Functional Independence Measure (FIM) levels assessed at admission, progression in walking/WISCI status, rehab discharge, and 3 year post-injury to validate hierarchical ranking and progression of improvement of the WISCI. 14 eligible subjects excluded for WISCI trial.

CONCLUSIONS

- The WISCI scale is a feasible outcome measure for walking function in clinical trials. The WISCI demonstrates prospective concurrent criterion validity and responsiveness to change.