

tent with the clinical diagnosis of Parsonage-Turner syndrome, although a C5 radiculopathy could not be ruled out. Magnetic resonance imaging of the cervical spine showed mild spondylosis and mild neuroforaminal narrowing at the C3-4, C5-6, and C6-7 levels.

Setting: A Veterans Affairs hospital.

Results: Eleven months later, the patient's right shoulder pain, weakness, and atrophy resolved.

Discussion: Although the electromyographic findings could be suggestive of a cervical radiculopathy, the cervical MRI showed mild neuroforaminal narrowing, and it is unlikely that this finding could account for the degree of atrophy in this patient. We discuss further the diagnostic dilemma in patients with clinical evidence of Parsonage-Turner syndrome and the differential diagnosis that should be considered.

Conclusions: The true etiology of our patient's symptoms still remains equivocal, but we suggest that the diagnosis of Parsonage-Turner syndrome should be considered in patients with postoperative shoulder pain when there is acute onset of pain followed by atrophy with evidence of active denervation and reinnervation on electromyography and poor anatomic correlation for radiculopathy on imaging. Brachial neuritis is a known cause for postsurgical shoulder pain, and this is the first case report to our knowledge that documents its occurrence after carotid endarterectomy.

GERIATRICS

Poster 116

Stair Negotiation Time in Community-dwelling Older Adults: Normative Values and Association With Functional Decline.

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Disclosures: M. Oh-Park, none.

Objective: To establish reference values for stair ascent and descent times in community-dwelling ambulatory older adults and to examine their predictive validity for functional decline.

Design: A longitudinal cohort study. The mean follow-up time was 1.0 year (maximum, 3.2 years; total, 448.7 person-years).

Setting: Community sample.

Participants: Older adults age 70 years and older (N=513; mean age, 80.8±5.1 years), without disability or dementia.

Interventions: Not applicable.

Main Outcome Measures: The time to ascend and descend 3 steps measured at baseline. A 14-point disability scale assessed functional status at baseline and at follow-up interviews every 2-3 months. Functional decline was defined as an increase in the disability score by 1 point during the follow-up period.

Results: The mean (standard deviation) stair ascent and descent time for 3 steps was 2.78±1.49 seconds and 2.83±1.61 seconds, respectively. Both stair ascent and descent times increased with increasing age, medical illnesses, depression, and disability scores, female gender, and fear of falling reporting. The proportion of self-reported as well as observed difficulty increased with increasing stair ascent and descent times ($P<.001$ for a trend for both stair ascent and descent). Of the 472 participants with at least 1 fol-

low-up interview, 315 developed functional decline, with a 12-month cumulative incidence of 56.6% (95% confidence interval, 52.1%-61.3%). The stair descent time was a significant predictor for functional decline after adjusting for covariates (adjusted hazard ratio, 1.09 (95% confidence interval, 1.02-1.16).

Conclusions: The stair ascent and descent times are simple and valid clinical measures for assessing functional status and the risk of functional decline in community dwelling older adults.

Poster 117

Do Elderly People at More Severe Instrumental Activities of Daily Living Limitation Stages Fall More?

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Disclosures: J. Brown, none.

Objective: Instrumental activities of daily living (IADL) limitation staging is a tool that demonstrates the ways in which an elderly person's cognitive and physical limitations influence interactions with the environment when attempting to live independently. It is currently being investigated in association with falls.

Design: A cross-sectional study. Stages reflect IADL tasks in a hierarchical order: using the telephone, managing money, preparing meals, light housework, shopping for groceries, and heavy housework. At stage 0, the individual has no limitation; stage 1, mild; stage 2, moderate; stage 3, severe; and stage 4, complete limitations in IADL tasks. The proportions of people who stated they fell once or multiple times were compared across 5 stages of increasing IADL limitation.

Setting: A nationally representative sample from the Second Longitudinal Survey of Aging (LSOA II).

Participants: 7401 community-dwelling persons 70 years of age and older.

Interventions: Not applicable.

Main Outcome Measures: At least 1 fall and multiple falls among those who fell within the past 12 months.

Results: After sample weights were applied, 14.3% of persons at stage 0, 27.2% at stage 1, 41.6% at stage 2, 40.0% at stage 3, and 31.9% at stage 4 recalled a fall within the past 12 months ($P<.0001$). When assuming that a person fell, 34.3%, 49.5%, 57.2%, 60.4%, and 76.8% had multiple falls at stages 0, 1, 2, 3, and 4, respectively ($P<.0001$).

Conclusions: Statistically significant associations were found between IADL limitation stages and a history of falling among elderly community-dwelling persons. Falls peaked at stage 2, formed a plateau at stages 2 and 3, and then dropped at stage 4. In contrast, multiple falls increased directly with stage. Stages could represent a powerful tool for screening patients in the U.S. elderly population according to risk of falls.

Poster 118

Is a Clinical Measure of Upper Limb Reaction Time Predictive of Lower Limb Neuromuscular Function?

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Disclosures: J. K. Richardson, National Institute on Aging, research grants; co-inventor of one of the clinical devices to be discussed; the patent is pending; the item is not a medical device, other.

Objective: To determine the relationship between a previously developed and validated measure of upper limb clinical reaction time (RTclin) and lower limb neuromuscular function in older subjects with a spectrum of neuromuscular health.

Design: A cross-sectional study.

Setting: A university biomechanics research laboratory.

Participants: Forty-two subjects (69.2±8.2 years; 21 women) with neuromuscular function, ranging from healthy to moderate diabetic peripheral neuropathy.

Interventions: Not applicable.

Main Outcome Measures: RTclin, the elapsed time from release of a suspended vertical shaft by the examiner until its arrest by the subject's hand closure, and measures of lower limb neuromuscular function, including neuropathy severity, clinical unipedal stance time, and established high technology measures of ankle inversion and eversion proprioceptive thresholds, frontal plane ankle and hip maximum voluntary strength and rate of strength development.

Results: Significant relationships between RTclin and lower limb neuromuscular function were identified. Specifically, prolonged RTclin was associated with more severe neuropathy, decreased unipedal stance time, increased (less precise) frontal plane ankle proprioceptive thresholds, and decreased frontal plane ankle rate of torque generation and maximum voluntary hip strength. Pearson correlation coefficient absolute values ranged from 0.371 to 0.417; with *P* values that ranged from .005-.037.

Conclusions: RTclin, an easily obtained clinical measure of upper limb reaction time, is significantly associated with lower limb neuromuscular function as determined by clinical and high technology measures. These features suggest that RTclin may have value to the clinician as an evaluation technique in a population at a markedly increased risk for accidental fall and injury.

Poster 119

Quantification of Skeletal Muscle Mass by Bioelectric Impedance Analysis in Elderly Individuals With Chronic Nonmalignant Pain and in Asymptomatic Individuals and its Relationships Among Impairments in Gait and Balance, Functional Limitations, and Disability.

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Disclosures: A. S. Miciano, none.

Objective: To evaluate the skeletal muscle mass (SMM) of elderly individuals with chronic nonmalignant pain (CNMP) and, in asymptomatic elderly adults (AEA), by using bioelectric impedance analysis (BIA) and to analyze the relationship among SMM, physical performance, and pain-related impairment (PRI).

Design: Retrospective study.

Setting: Comprehensive Outpatient Rehabilitation Facility (CORF).

Participants: 26 of 100 subjects (12 men, 14 women) with CNMP and 23 asymptomatic individuals (11 men, 12 women).

Interventions: None.

Main Outcome Measures: BIA measured the SMM, calculated in both CNMP and AEA by using a BIA prediction equation.

The PRI was quantified by using the Pain Disability Questionnaire (PDQ), a formal assessment of pain disability from the AMA Guides to Evaluation of Permanent Impairment, 6th Edition. Functional limitations and disability were assessed with the Physical Performance Tests (PPT): Berg Balance Scale (BBS), and 6-Minute Walk Test (6MWT).

Results: Mean (SD) age was 62±13 years, with a mean CNMP duration longer than 5 years. Most individuals with CNMP were or had been receiving oral analgesics treatment. The mean (range) SMM was 20.94 kg (range, 11-40 kg) in CNMP and 24.58 kg (range, 12-39 kg) in AEA. The work performance percentage calculated from 6MWT values averaged 64% (range, 48%-77%) in CNMP and 62% (range, 44%-77%) in AEA. The mean BBS score was 42 of 56 (range, 12-56) in CNMP and 49 of 56 (range, 36-55) in AEA. The mean PDQ score was 59 of 150 (mild PRI).

Conclusions: The BIA demonstrates lower SMM in patients with CNMP than in AEA. The PRI tend to affect the SMM, which leads to a further decrease in physical performance. Elderly individuals with CNMP tend to have lower skeletal muscle mass and poorer balance, but they have a similar work performance capacity as in AEA. Objective physical function in CNMP was poorer with increasing PRI. Older adults should focus on increasing and maintaining strength, power, and balance to decrease functional limitations. Further study on the correlation of the SMM, BBS, and work performance in elderly individuals with CNMP is suggested.

Poster 120

Effect of Dominant Versus Nondominant Vision in Postural Control.

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Disclosures: S. Yoon, none.

Objective: To assess the effect of dominant and nondominant vision in controlling posture in quiet stance.

Design: A randomized control test.

Setting: A tertiary-based hospital in the Republic of Korea.

Participants: The study was targeted to 2 groups: one group consisted of 25 patients between 60 and 80 years old who were diagnosed with no abnormal findings in visual acuity test and fundus examination executed at the department of ophthalmology in the hospital and who had at least 0.7 maximum corrected eyesight; the other group was of 25 young adults between 20 and 29 years old. The study was sufficiently explained the participants, and the participants gave written consent.

Interventions: SMART Balance Master system.

Main Outcome Measures: The dominant eye test is made by using the hole-in-the-card test. For the balance test, the Sensory Organization Test was executed by using the SMART Balance Master system, which is available for qualifying evaluation.

Results: For the young adult group, no statistically significant difference in the sense of balance between the dominant eye and the nondominant eye was detected in all 6 conditions (*P*>.05). However, when the sense of balance between dominant eye and non-dominant eye for the aged was compared, the conditions 3, 4, and 6 showed a statistically significant difference, although there was no significant difference in the conditions 1, 2 and 5 (*P*<.05).

Conclusions: In young people, there were no significant differ-