sociale. La présentation permettra d'aborder ces éléments afin de faire connaître les portées et limites de la formation.

Mots clés Transport en commun ; Limitations fonctionnelles motrices ; Société de transport de Montréal ; Déplacement ; Ville

Déclaration de liens d'intérêts Les auteurs déclarent ne pas avoir de liens d'intérêts.

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Effets d'un nouvel exosquelette pour le membre inférieur incorporant un système d'assistance élastique sur la marche et les tâches connexes à la marche auprès d'individus ayant une hémiparésie suite à un accident vasculaire cérébral

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Fall risk after a stroke: Mean follow-up of 2 years

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Introduction Falls is the third cause of post-stroke rehospitalizations. Clinical profiles and risk factors of fallers after stroke are still debated. Their better understanding is required for an active prevention. The main objective of our study was to determine the profile of post-stroke fallers.

Material and methods We analysed data of 178 individuals of the DOBRAS cohort, who had been comprehensively assessed (deficits and activity limitations) in the rehabilitation ward 30 days after a first hemispheric stroke, then were followed especially regarding postural and gait recovery... Falls were monitored, from factual information during the stay in the rehabilitation department, then from interviews at regular clinical consultations, completed if required by phone calls at the final review (median 2 years; Q1—Q3 7—67 months post-stroke). Their main characteristics were: age 66 years old [Q1 = 55.7—Q3 = 72.0], 67% of males. The stroke touched the right hemisphere in 40% of cases, and was due to a cerebral infarct in 85%. Multivariable logistic regressions were performed on the basis of univariate analyses.

Results Out of the 178 individuals, 25 (14%) fell once and 47 (26%) several times. Half of those who fell in the rehabilitation ward also fell after discharge. Univariate comparisons between fallers and non-fallers found several significant differences with medium effect sizes, so determining the clinical profile of future fallers as early as 1 month post-stroke. Fallers had a more extended stroke ($P = 0.014$), with greater weakness spasticity, hemineglect, and lateropulsion (all $P < 0.001$), with greater balance and gait disabilities (both $P < 0.001$). A logistic regression showed that the best combination to discriminate fallers comprised 3 variables, urinary incontinence (OR = 3.7; 95% CI [1—6.3]; $P = 0.002$), moderate motor weakness (3.4; 95% CI [1.5—7.9]; $P = 0.004$), and spasticity (OR = 3.2; 95% CI [1.4—8.3]; $P = 0.01$).

Discussion One month after a hemisphere stroke, it is possible to detect patients having a high risk of future fall. This should help for an active prevention.

Keywords Stroke; Fall after stroke; Risk factors for fall

Disclosure of interest The authors declare that they have no competing interest.

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The energy cost of walking and gait speed in older adults: A review of training methods

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Introduction A reduction in gait speed has been associated with many health-related problems in older adults. Importantly, aging is often characterized by a series of biomechanical and neuromuscular alterations, which could increase the energy cost of walking (ECW) and explain, at least partly, the observed reductions in gait speed. However, most of the investigations highlighting the role of the ECW as a key factor for gait speed in older adults were observational. While some training methods could reduce the ECW in older adults, the consequences of these effects on gait speed are still inconclusive.

Material and methods Through a review of the available literature, this talk will focus on the comparison between different interventions to reduce the ECW and improve gait speed in older adults.

Results Recent studies suggest that training methods with a focus on gross motor skills development, aerobic capacity and lower-body muscle strength could be implemented to enhance the ECW in older adults. However, the association between improvements in ECW and gait speed is much less obvious.

Discussion Although different training methods seem promising to reduce the ECW, the best intervention protocol still needs to be established, especially considering that the effects on gait speed might vary based on the participant's condition at the beginning of the intervention.

Conclusion The ECW is a key factor associated with gait speed in older adults. More intervention studies are necessary to confirm that improvements in ECW could lead to clinically significant improvements in gait speed.

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