high (CTL, 1.93 ± 0.18 step/s, PD, 2.13 ± 0.24 step/s, P = 0.036). Step length was decreased in both NPH and PD groups (CTL, 0.61 ± 0.10 m, NPH, 0.43 ± 0.15 m, P = 0.014; PD, 0.49 ± 0.17 m, P = 0.059).

Fast speed
The relative contribution of cadence (CDI) and step length (SLI) to speed increase was similar in CTL and NPH groups. In the PD group, CDI was reduced and SLI was increased compared with CTL and NPH groups (NPH vs. PD, CDI, P = 0.058; SLI, P = 0.052).

Conclusions
The decrease in comfortable gait speed and the increase in step width may be discriminant for the NPH diagnosis. In subjects with NPH, the relative contributions of cadence and step length to speed increase are spared, in contrast with moderate PD.

References

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CO23-005-e
Can the strop test for dual task locomotor performance reveal the existence of cognitive decline?
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Keywords: Locomotion; Stroop; Inhibition; Dual-task

Aim.– The Stroop test consists in a mental inhibition task that is affected by normal and pathological aging [1]. The objective is to determine whether or not the Stroop interference effect is heightened in various walking situations according to the type of cognitive impairment and if it is able to detect cognitive impairment.

Method.– Population
Thirty-five older aged, autonomous volunteers without any pathology likely to influence walking or posture, were given a psychometric test (MMSE, BREF, Dubois, WAIS, electronic version Corsi Block Test CBT) and an instrumented 10 m walking test (GaitRite). We divided the participants into 3 groups according to their levels of influence walking or posture, were given a psychometric test (MMSE, BREF, 5 words of Dubois), an evaluation of the inhibitory functions (Stroop), and an instrumented 10 m walking test (GaitRite).

CO23-006-e
How specific are cognitive deficits in short-term visuospatial memory in mild cognitive impairment (MCI) patients?
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Keywords: Dual-task; Walking Corsi test; Posture; Corsi block-tapping task

Introduction.– MCI subjects are characterized by impairments in constructive abilities, short-term spatial memory deficits, and disorders of spatial orientation (topographical disorientation). The aim of the study is to determine whether short-term visuospatial memory deficit in dual tasking (locomotion) could constitute a good indicator in detection of MCI patients.

Method.– Protocol
In dual task (DT), we used a recently devised psychometric instrument (Walking Corsi Test: W-CBT) to assess the specific contribution of spatial memory to the complex task of retrieving route knowledge [1].

Results.– The cognitive test CBT and W-CBT performances were significantly less satisfactory in the mMCI (m = 4) in comparison with the other mMCI (m = 4.6), mMCI (m = 4.6) and HO (m = 4.8) subjects. Short-term visuospatial memory capacities were more strongly altered in the W-CBT (MWACT = 4.0) than in the CBT (MCBT = 4.8).

Conclusions.– In all the tests, alterations of dual-domain MCI performances (vs. those of the other groups) show that the cognitive functions involved in the dual-task W-CBT associate working memory with the other executive functions.

Reference

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Interest of reeducation in knee osteoarthritis: A comparative study between elderly and young subjects
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Keywords: Osteoarthritis; Rehabilitation; Functional assessment

Introduction.– Knee osteoarthritis is a public health problem; its management must be multidisciplinary and personalized.

Objective.– To underline the importance of rehabilitation in the treatment of knee osteoarthritis in elderly compared to young patients.

Materials and methods.– Case-control study conducted in the service of PMR in Military Hospital of Tunis. The patients were divided into two groups, Elderly patients aged more than 70 years and young patients aged between 30 and 50. The assessment of functional impairment was assessed by VAS pain, WOMAC index and LEQUESNE index. All patients underwent a rehabilitation program conducted in three sessions per week for two months.