INTRODUCTION

- At least, one third of the patients with CVD suffer from communicative disorders accompanied by other cognitive disruptions (Kauhanen, et al., 2000; Sacco, et al., 2013).
- There is no clinically homogenous pattern of cognitive symptoms or established course of cerebrovascular disease (CVD) from initial to terminal stages.
- We present a newly validated adaptation of the Oxford Cognitive Screen into Russian (Rus-OCS; Shendyapina, et al., 2017) measuring attention, memory, praxis, language and number processing and generates a unique cognitive profile.
- Rus-OCS is designed to detect cognitive impairment using nonverbal responses and is suitable when aphasia, apraxia and visual neglect are present.

OBJECTIVES

- Collect preliminary Rus-OCS normative data on CVD patients
- Compare performance of stroke participants with different lesion locations (left vs right)
- Determine if there is a specific cognitive profile associated with two different stages of CVD - small vessel disease (SVD) and chronic stroke

MATERIALS

1. Language
   - Picture Naming
   - Picture Pointing
   - Sentence Reading

2. Attention
   - Hearts Cancellation
   - Trail Making

3. Memory
   - Orientation
   - Verbal Recall
   - Episodic Recognition

4. Praxis
   - Gesture Imitation

5. Number Skills
   - Number Writing • Calculation

6. Additional Task
   - Rus-MoCA

RESULTS

Aim 1: Rus-OCS data on stroke and SVD
Cut-off scores were set at 5th percentile for scores in those tests where higher results indicated more preserved cognitive functioning and 95th percentile for scores in the tests where the score larger than normative cutoff signifies weaker performance.

Aim 2: Left VS Right Stroke
Left Bilateral
Better on verbal tasks than LH
Better on memory than RH

Right
Lower performance on all language subtasks
Worse than LH in visual accuracy and worse than BH in space asymmetry

Aim 3: SVD VS Chronic Stroke
Executive score
Orientation
Verbal Recall
Visual Neglect
Vasospasm
Calculation
Number Writing
Picture Naming
Sentence Reading

REFERENCES


CONCLUSIONS

- SVD group demonstrated mild level of verbal and non-verbal cognitive impairments mostly in the verbal memory domain.
- Chronic stroke cohort revealed high-incidence impairments on language, memory, executive and numerical domains.
- Additional analysis on patients with different lesion localisations showed that left hemisphere stroke survivors are likely to have the highest rate of language functions deficit. Statistical analysis of the impairment ratios within each group confirmed these results.
- The observed differences could be explained by cognitive decline in lesion specific sites following loss of intact brain tissue. The accumulation of deficits may lead to the secondary-level cognitive disorders.

CONTACT INFO

Maria Shendyapina, PhD Candidate
The University of Hong Kong
Email: mshend@hku.hk
Phone: +852 9122 9156
http://rus-oecs.tilda.ws/en