

The ischemic stroke effect on spatial abilities mechanisms

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Abstract

Background. It is a well known fact that stroke induces, more or less, a decline of the cognitive functions in most clinical cases.

Aims. In this paper, we focused on the intensity of decline of the spatial capacity, in other words, the mechanisms which help us to understand and cope with our environment, transforming images and operating in a tridimensional field (3D).

Methods. Two groups of patients were formed: group I was the control group comprising people who had never suffered any stroke and group II comprised patients who had suffered one stroke in the last 6 months. We evaluated both groups with Psychological Cognitive Aptitudes Test Battery (PCATB), using two tests which covered the concept “Spatial Ability”: “Transforming mental images test” and the “Spatial Orientation Test”.

Results. The patients from the ischemic stroke group obtained lower scores at both tests ($p < 0.01$) of “spatial ability” than the subjects from the non-stroke group.

Conclusions. Evaluating and understanding the physiopatological aspects of spatial abilities mechanisms is useful and necessary in the rehabilitation process regarding post stroke patients.

Key words: stroke, cognitive, evaluation, spatial, ability.