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References
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P010-e
From unconscious to conscious vision: Rehabilitation of a case of cortical blindness
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Introduction Cortical blindness is defined as a loss of conscious visual sensation caused by damage to the primary visual cortex or its postchiasmal afferents. Such a deficit is followed by a period of plasticity that rarely lasts beyond 6 months and is thought after to be stable and permanent. These patients behave as if they were blind, without being able to distinguish movements or changes in brightness. However, we observe a residual visual treatment process among some patients. The conscious perception is either altered or absent (i.e. the “blindsight” phenomenon) [1]. This residual vision may be the basis for appropriate neurovisual rehabilitation [2].

Observation Mr. N. is a 42-year-old right-handed male, admitted to our rehabilitation unit after a posterior reversible encephalopathy syndrome. The lesion analysis highlights a bilateral lesion of visual areas and the fusiform gyrus and the right inferior temporal gyrus. Mr. N. presents a complete cortical blindness without anosognosia. Rehabilitation is based on the stimulation of residual processing abilities (blindsight). First, perception of brightness changes as well as movements and colors are recovered. After 6 months, the conscious perception of simple shapes becomes possible and after 1 year, Mr. N. begins to perceive letters. A Goldmann visual field examination revealed recovery of a part of the right visual field. After 2 years, the conscious perception of objects becomes possible and the visual field continues to improve.

Discussion Improvement of visual perceptual abilities following a cortical blindness appears thanks to an appropriate rehabilitation and continues 6 months post-lesion. The use of alternative subcortical pathways (direct route colliculo-pulvinar to V5 and direct lateral geniculate nucleus to V4) [3], reported in blindsight phenomenon, might suggest a recovery of a conscious vision.

Keywords Cortical blindness; Rehabilitation; Neuropsychology; Blindsight

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References
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P011-e
Diagnosis of crossed aphasia, a case report
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Introduction The purpose was to back up on all the arguments [1], for to diagnose crossed aphasia (CA) our patient and improve rehabilitation.

Subject A man of 45 years, right-handed, presented a dysarthria accompanied by a loss of verbal fluency, lack of word and paraphasias, after a parietal-temporal hematoma in right hemisphere. The interrogatory did not find a familial history on a left handedness. Brain imaging confirmed the integrity of the left hemisphere in the initial MRI and CT scan. The speech therapist assessment showed the oral picture naming test alack of the word (61/80, decreased lexical background, non-response, breaks) and semantic paraphasias. The questionnaire of the Boston Diagnostic Aphasia Examination of the repetition of sentences showed an effect of length and omissions of words. Reading words and sentences aloud contained substitutions, additions and paralexies. Listening was average (11/15: order execution, 6/12: understanding sentences and texts). Reading comprehension was average, 6/10. The writing contained many errors (perseveration, paraphrases literal and neologisms). The copy was altered. Automatic series were not preserved (Transcript of the alphabet). Brain lateralization test found an ocular dominance right and right lower limb (20/20). Neuropsychological assessment found disorders of attention (Stroop and Trail Making Test [TMT] with 4.12 standard deviation [sd] and the correct T score 1.9 and 2.4 sd) and mental flexibility (TMT: 3.41 sd). An impaired working memory (WAIS: span = 7 and to place = 3) and logical reasoning (WAIS-III: 5). A deficit in verbal episodic memory (learning the verbal list of BEM 144: 1.31 sd) affect the encoding and retrieval processes.

Discussion We have thus confirmed the diagnosis of crossed aphasia by eliminating a left handedness and a lesion in the left hemisphere. The speech therapist and neuropsychological allowed to assert the diagnosis of aphasia associated with cognitive disorders [2]. Therefore we associated the language rehabilitation in a targeted program on cognitive function and gained better results.

Keywords Crossed aphasia; Stroke; Right hemisphere

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