

visuospatiale sévères et probablement apraxie visuo-constructive. L'évolution et l'affinement du bilan neuropsychologique seront détaillés dans la présentation.

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### English version

P070-e

#### Neuropsychological disorders in central pontine myelinolysis

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**Introduction.**— Central pontine myelinolysis or osmotic demyelination was first described by Adam et al. in 1959. This rare syndrome is caused by a rapid correction of chronic hyponatremia. Several risk factors are identified: alcoholism, malnutrition, kidney failure, hepatic disease, transplantation. . . The pathophysiological mechanisms are not well known: symmetrical non-inflammatory demyelination in the pons would be induced by an osmotic stress caused by an overly rapid reversal of chronic hyponatremia. Clinical manifestations are variable. A spastic quadraparesia, pseudobulbar syndrome, dysarthria, dysphonia, or neuropsychological deficits are most common. Here, we report the case of a patient with neuropsychological disorders.

**Case report.**— A 52-year-old man with a past history of chronic alcoholism and smoking was admitted in an emergency context for deterioration of general status. A lung infection affecting the middle lobe complicated with kidney failure with hyperkalemia at 7 mmol/L and hyponatremia at 113 mmol/L were found. Two successive cardiac arrests occurred; the second one lasted 15 minutes. When the sedation was discontinued, the patient presented quadriparesia compatible with intensive-care polyneuropathy and post-intubation dysphonia. The patient presented disorders of the short term memory, fantasizing, false recognition and perseveration. The neuropsychological tests revealed severe dysexecutive syndrome: inattention, short-term memory impairment, and alteration of the recovery process in verbal episodic memory. To investigate these deficits, an MRI was performed and revealed a hypointense signal on the T1 sequence and a hypersignal on the T2 sequence in the centropontine area, suggestive of a myelinolysis centropontine lesion.

**Discussion.**— The neuropsychological disturbances in central pontine myelinolysis syndrome are described in reviews: short-term memory deficit, an important distractibility, inattention, logorrhoea. . . This case report shows that mnemonic disorders can be important in the clinical presentation of osmotic

demyelination. The neuropsychological impact of this disease can be difficult to distinguish from disorders related to alcoholism. The prognosis is uncertain. Cognitive disorders and their evolution should be investigated in patients presenting centropontine myelinolysis.

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P071-e

#### Complexity of visual disorders after right posterior cerebral artery infarction: A case report

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**Introduction.**— Posterior cerebral artery (PCA) infarction can lead to multiple entangled visual disorders, well-known in middle cerebral artery (MCA) infarction. We present a case report.

**Case report.**— Visual disorders occurred after a right PCA infarction (atheromatous etiology) on Mr. D M, 63 years old on the 6th of March 2012. Previous history included a left superficial MCA infarction in 2008 (leading to an only aphasia spontaneously regressive). He was a right-handed Senegalese cleaning agent. He had lived in France for 40 years and had a good level in French, both reading and writing. Large damage on the right PCA territory (medial temporal lobe, occipital lobe, parahippocampal gyrus, posterior part of the thalamus, splenium of the corpus callosum) and left pre-frontal gyrus sequel were found on the RMI.

On the 3rd of April 2012 (admission in the PRM department) the patient presented visual impairment disorders: massive clinical left hemianopsia and an atypical left visual neglect. As a matter of fact, peripersonal and extrapersonal neglect were pre-eminent and severe, while personal neglect was rather moderate and conceptual neglect was rather respected as the straight ahead perception. Neglect did not allow asserting the presence of visual agnosia or visuo-constructive apraxia although strongly suspected. The 2D and 3D conception of space was dramatically disrupted. Visual acuity was good. Anosognosia was evident. There were not sensory-motor, memory or language disorders except a slight speech disorder (pseudo-stammering). The FIM scored at 89/126.

**Conclusion.**— In this case report, the patient's right PCA damage lead to more complicated clinical features that usually described: left hemianopsia, massive neglect, severe visuospatial analysis and probably visuo-constructive apraxia. The six-month evolution and the refined neuropsychological assessment will be detailed in the presentation.

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