

A cerebral CT scan: brain atrophy more prominent in the Frontal region and major ventricular dilatation. The diagnosis of general paralysis was based on clinical manifestations (delusions and dementia) associated to a positive serology in serum and CSF. Patient was treated by a high dose penicillin-therapy in perfusion and neuroleptics.

### P273

Apathy correlates with dopamine uptake in neurodegenerative diseases. A spect study with partial volume effect correction

R. David<sup>1</sup>, M. Koulibaly<sup>2</sup>, J. Darcourt<sup>2</sup>, P.H. Robert<sup>1</sup>. <sup>1</sup> *Research and Memory Center, Department of Psychiatry, Pasteur Hospital, Nice, France* <sup>2</sup> *Department of Nuclear Medicine, Pasteur Hospital, Nice, France*

Apathy is present in several neuropsychiatric diseases. The main purpose of the study was to stress the relationship between apathy and striatal dopamine uptake in patients with Alzheimer's disease (AD) or Dementia with Lewy body (DLB).

**Methods:** 22 patients were included.

All patients had neuropsychological and behavioural examination including Mini Mental Test (MMSE), Neuropsychiatric Inventory (NPI), and UPDRS for the motor activity assessment. Apathy dimensions, emotional blunting, lack of initiative and lack of interest were assessed using the Apathy Inventory (IA). Patients DA striatal uptake were assessed by 123I-FP-CIT (DaTSCAN<sup>®</sup>) SPECT. A method of quantitative 3D measurement was used in order to allow a precise quantification of modifications affecting striatal cerebral structures.

**Results:** The two diagnostic subgroups were equivalent in term of age and MMSE score.

There were no correlations between the NPI delusion, hallucination, depression and anxiety score with DA uptake. There was a significant correlation between the IA total score and the bilateral putamen DA uptake. More specifically, lack of initiative significantly correlated with bilateral putamen DA uptake, whereas lack of interest significantly correlated with left caudate DA uptake. The UPDRS score was significantly correlated with left putamen and caudate DA uptake.

Using partial correlation coefficients controlling for the UPDRS score, the correlation remained significant between lack of initiative with right putamen DA uptake and left putamen DA uptake.

**Conclusion:** These results indicate that there is a relation between apathy and DA uptake, independent of motor activity.

### P274

Atomoxetine improved response inhibition in adults with ADHD

N. del Campo, S.R. Chamberlain, J. Dowson, U. Muller, L. Clark, T.W. Robbins, B.J. Sahakian. *Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom*

**Background:** Atomoxetine, a highly selective noradrenaline reuptake inhibitor, shows efficacy in the treatment of ADHD. Despite evidence that atomoxetine improved inhibitory control in animals and healthy volunteers, studies had yet to explore short-term cognitive effects in patients with ADHD.

**Method:** The cognitive effects of a single oral dose of atomoxetine (60mg) were evaluated in n=22 adults with DSM-IV ADHD, using a within-subject placebo-controlled double-blind design. Assessment included the stop-signal test and Rapid Visual Information Processing test from the Cambridge Neuropsychological Test Automated Battery (CANTAB). Cardiovascular responses were monitored. Normative cognitive data from 20 healthy volunteers were collected for comparison.

**Results:** Atomoxetine was associated with shorter stop-signal reaction times ( $p < 0.05$ ) and lower numbers of commission errors ( $p < 0.05$ ) on the sustained attention task in the ADHD patients.

**Conclusions:** These findings suggest that atomoxetine exerts beneficial effects on aspects of inhibitory control in ADHD, which may belie the efficacy of this medication in the treatment of impulsive features of the disorder. These findings also have potential clinical implications for other impulse dysregulation disorders such as trichotillomania and Tourette's Syndrome.

### P275

Psychotic episode of multiple drug user after acute anticholinergic intoxication - a case report

N. Dostanic, M. Stankovic. *Department of Alcolism, Institute of Addiction, Belgrade, Serbia*

**Background:** In recent years there is the rising trend of anticholinergics use among high school students especially it is common to mix alcohol with anticholinergics. The characteristic features of anticholinergic intoxication are the rapid onset of alterations in mood, cognition and perception in the presence of a clear sensorium and following the ingestion of the drug in a commonly distributable form. But if psychotic symptoms are present in the absence of retained reality testing a diagnosis of substance-induced psychotic disorder may be warranted. Therefore, in some cases clinical picture presents a differential diagnostic dilemma.

**Method:** The authors present the case report of twenty-one year old male with dependence of multiple drug use (according the criteria of ICD-X), who was observed in department of alcoholism. In early adolescence period he used different psychoactive substances (opioids and non-opioid psychoactive substances). At last two years he episodically consumed anticholinergics. Upon the mixed use of alcohol with anticholinergics he experienced auditory hallucinations, rapid and incoherent speech and paranoid ideation. He acted out his imperative hallucinations aggressively with violent behavior.

During hospital treatment he was treated with antipsychotic medications, benzodiazepines and supportive and educational therapies.

**Results:** On this regiment psychotic symptoms resolved completely after two weeks.

**Conclusion:** Results of complete psychiatric-psychological examination did not indicate psychotic disorder.

### P276

Specific characteristics of prefrontal cortex functions in multiple sclerotic patients

H. Ekhtiari<sup>1,2</sup>, P. Jangouk<sup>2</sup>, A. Behzadi<sup>1,2</sup>, A. Mokri<sup>1,2</sup>, A. Jannati<sup>1,2</sup>, H. Safaei<sup>1,2</sup>, M. Sahraian<sup>2</sup>, J. Lotfi<sup>1,2</sup>. <sup>1</sup> *Iranian National Center of Addiction Studies, Tehran, Iran* <sup>2</sup> *Tehran University of Medical Sciences, Tehran, Iran*

Cognitive dysfunction is common in MS and can cause poor quality of life. Physical examination and EDSS can not reliably predict cognitive impairments. Frontal cortex atrophy predicts cognitive impairment in MS. Dorsolateral prefrontal cortex (DLPFC) processes logical thinking, working memory, attention and executive functions and ventro-medial pre-frontal cortex (VMPFC) processes emotional evaluations, social cognition and response inhibition. We assessed DLPFC and VMPFC dysfunctions in MS patients with neuropsychological assessment tasks.